

ROBERT F. SAVINELL

## Robert Savinell Named Distinguished University Professor

ROBERT F. SAVINELL, the George S. Dively Professor of Engineering in the Department of Chemical Engineering at Case Western Reserve University (CWRU), has been named a Distinguished University Professor. This pemanent, honorific title recognizes the outstanding contributions of full-time,

tenured CWRU professors with exceptional academic records of research, scholarship, teaching, and service.

Professor Savinell is Editor of the ECS Electrochemical Science and Technology (EST) journals. As Editor, Professor Savinell leads a prestigious team of Technical Editors and Associate Editors for the ECS flagship, *Journal of The Electrochemical Society* (JES), as well as for one of the Society's latest peer-reviewed offerings, *ECS Electrochemistry Letters* (EEL).

Savinell is a past Chair of the ECS IE&EE Division and is a Fellow of ECS. He is also a Fellow of the American Institute of Chemical Engineers and the International Society of Electrochemistry.

Dr. Savinell holds a BS in Chemical Engineering, Cleveland State University, and an MS and PhD in Chemical Engineering, both from the University of Pittsburgh. He was Dean of the Case School of Engineering at CWRU from 2000 to 2007, is the former Director of the Ernest B. Yeager Center for Electrochemical Sciences at CWRU, and currently serves on the Advisory Board of the CWRU Great Lakes Energy Institute.

Professor Savinell's research program addresses electrochemical solutions to energy conversion and energy storage challenges, with recent emphasis on high temperature PEM fuel cells, flow batteries for large scale energy storage, and understanding materials and durability issues of electrochemical capacitors. His research focuses on understanding the thermodynamic, kinetic, and transport processes at electrochemical interfaces and within electrochemical systems through experimental and simulation approaches, and the wider scope spans fundamental investigations through translational research toward commercial application.

## Henry Tuller Elected Vice-President of ISSI



HARRY L. TULLER

HARRY L. TULLER, of the Department of Materials Science and Engineering at MIT, was elected Vice-President/President-Elect of the International Society of Solid State Ionics (ISSI). Elections were held for new officers at the 19<sup>th</sup> meeting of the International Meeting on Solid State Ionics (SSI-19), held in Kyoto during the week of June 2<sup>nd</sup> and attended by nearly 900 participants.

The stated goals of ISSI are "to promote science and technology related to ionic transport in solids" and to "provide an international and

interdisciplinary forum for scientists in this field." Solid State Ionics forms the underpinnings of many key clean energy technologies including high energy density batteries, fuel and electrolysis cells, dye sensitized solar and photo-electrolysis cells, emission catalysts, and sensors. Professor Tuller successfully ran on a platform emphasizing the need for educating the public, government agencies, industry, and universities on the critical need for clean energy and the strategic contributions that the field of solid state ionics can and the needs to insure progress along these lines.

#### **Jamal Deen Receives Major Honors**

The week of May 6, 2013 has been an amazing one in the professional life of Indo-Guyanese engineering scientist scholar, **Jamal Deen**. He is the Senior Canada Research Chair in Information Technology, Professor of Electrical and Computer Engineering, and Professor of Biomedical Engineering and Director, Micro- and Nano-Systems Laboratory, McMaster University, Hamilton.

On Monday in Regina, Dr. Deen was presented with the McNaughton Gold Medal, the highest award for engineers in Canada from IEEE, the largest professional society in the world. The short citation was "For pioneering contributions to modeling of semiconductor devices." An important goal of the IEEE Canada awards are to recognize the distinguished and outstanding contributions and achievements of engineers, and to promote excellence and positive role models in society.



**JAMAL DEEN** with the McNaughton Gold Medal Award plaque.

In his speech to the awards ceremony attendees, Prof. Deen emphasized that "while this award is being presented to me, it is really recognition of the exceptional and sustained efforts of my family and teams of talented students, gifted researchers, and remarkable collaborators. Throughout my career, I have been fortunate to work with exceptional researchers. They have taken our ideas and proposals to new heights, and are largely responsible for the high academic reputation and respect earned from my peers."

His speech included the statement that "it is critical that we never lose faith in ourselves and our abilities. We should all have dreams, and we should pursue them with passion. Over my career I have been a constant dreamer. Do not lose faith if the outcome is less than stellar. It is quite possible that such outcomes may provide lasting learning experiences upon which even greater successes are achieved."

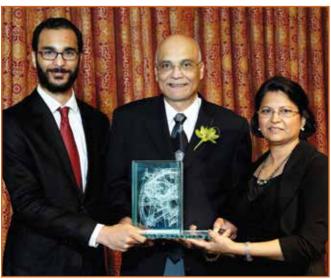
On May 8, Prof. Deen was presented with the McMaster Engineering Research Award at the Faculty of Engineering's Annual "Applause and Accolades" Gala. This award recognizes his "world-class status and peer-recognitions as a researcher, as well as his sustained research efforts and leadership in the faculty of engineering."

On Friday May 10, Dr. Deen was honored as the 2013 Winegard Lecturer at the University of Guelph. His Winegard lecture, to more than a hundred attendees, was entitled "Biosensors—Playing at the Crossroads of Engineering and the Sciences" where he emphasized the fun he has had doing research over the past three decades. The Winegard Lecture, made possible and named in honor of Guelph's former president William Winegard, who was also a federal Minister of State (Science and Technology) as well as Minister for Science, "is an annual event that brings a world-renowned academic or industry professional" to broad audience that includes university faculty, staff, and students as well as the general public. The lecture is also to "encourage interaction and foster professional relationships between students (undergraduate and graduate), professors, researchers, alumni, and industry associates," with a recognized leader in their field

Professor Deen's lecture was extremely well-received with the lecture lasting just under hour and the questions and answers period an additional hour. Feedback from the attendees were uniformly very positive with several comments speaking to the accessible and enthusiastic manner in which the lecture was presented. The lecture was divided into three parts. The first part was on a most precious environmental commodity, water—its properties, importance to our good health, distribution and problems. The second part was on microbiological contaminants in water and how these bacterial contaminants can be recognized by parts of their DNA structure. The final part used ideas in the first two parts toward the development of low-cost, high sensitivity, and easy-to-use biosensors and sensing systems by Prof. Deen with his collaborators and team of researchers.

On May 11, the University of the West Indies presented him with a Vice Chancellor's Award in recognition of his "exceptional scholarly work in engineering and science, exemplary professionalism, and dedicated volunteerism." His speech contained several of the sentiments expressed earlier in the week as the McNaughton Gold Medal winner. In addition, he stated, "As an academic from the Caribbean region, I have been fortunate to win many awards. However, this recognition here tonight means a lot to me and my family, and it will be very dearly treasured throughout our lives."

This article was written by Adit Kumar.



Jamal Deen (center), his youngest son Tario Deen (left), and Dr. Deen's wife Meena Deen (right), at McMaster Engineering Research Award event.

## In Memoriam

## Joseph Grover Gordon II (1945-2013)



JOSEPH GROVER GORDON II

esearch chemist and research manager Joseph GROVER GORDON II was born on December 25, 1945 in Nashville, Tennessee. He was one of four children. After briefly attending Atkins High School in North Carolina, Dr. Gordon went on to graduate from the prestigious Phillips Exeter Academy in 1963. Dr. Gordon earned his AB degree in chemistry and physics from Harvard College in 1966. He received his PhD in inorganic chemistry from Richard Holm at MIT in 1970.

Professor Gordon was an assistant professor in chemistry at the California Institute of

Technology from 1970-1974. During this period he discovered a new class of 1-D organometallic conductors based on metal isocyanides. In January 1975, he joined the research staff at the IBM San Jose Research Center (later the Almaden Research Center). During a fruitful IBM Research Division career spanning 33 years, he held increasingly more responsible technical and advisory management positions including assignments on local and divisional Research Director technical staffs.

In research Dr. Gordon pioneered in important areas of interfacial electrochemistry (1975-1994). With Jerry Swalen, Dr. Gordon made the first use of surface plasmons as probes of Langmuir films on metal surfaces, and went on to develop this method to study charged metal electrode-aqueous electrolyte interfaces. Other key projects included the application of quartz microbalance technology to electrochemistry with Kay Kanazawa, *in situ* surface EXAFS and *in situ* interfacial X-ray diffraction measurements with Owen Melroy and Michael Toney. During this period Dr. Gordon and the interfacial electrochemistry group enjoyed significant interactions with

university groups (Puerto Rico, Cornell, Purdue) and young visiting researchers from Berlin, Mainz, Zurich, Padua, Bologna, Bordeaux, and Sapporo. Additionally Dr. Gordon lead efforts that contributed greatly to understanding the mechanism of electroless copper plating (printed wire boards) and the corrosion of magnetic alloys (recording heads) in major IBM technologies.

Joseph Gordon was a successful technology manager. In areas of support and technology he headed IBM departments for Materials Science and Analysis, Batteries and Displays, New Directions in Science and Technology, and was the Research Relationship Manager for Health Care. Prior to retirement (2009) Dr. Gordon was the Senior Manager of Materials for Advanced Technology with the responsibility of developing an exploratory battery materials research program and evaluating new battery technology for ThinkPad strategic planning (Raleigh, NC) and development in Japan. After retirement Dr. Gordon joined Applied Materials Inc., as Senior Director for the Advanced Technologies Group and in 2013 he was appointed CTO of Energy Storage Solutions.

Throughout his career Dr. Gordon combined strong commitments to scientific research and technology. Dr. Gordon published numerous research papers in journals of the American Chemical Society, The Electrochemical Society, and the American Physical Society; and he was credited with twelve United States Patents including several for novel electrophoretic displays (with Mark Hart and Sally Swanson).

Within IBM, Dr. Gordon was recognized many times for scientific and technical achievements. He was a member of professional organizations that included: the American Chemical Society, American Physical Society (Fellow 2000), AAAS, Society for Analytical Chemistry, The Electrochemical Society, and the National Research Council. In 1990, he was awarded the Black Engineer for Outstanding Technical Achievement and in 1993 the National Organization of Black Chemists and Chemical Engineers awarded Dr. Gordon the Percy L. Julian Award.

Joseph Grover Gordon II passed away on September 13, 2013. He is survived by his wife Ruth M., son Perry (wife Alyshia), grandson Graystone, two brothers, and a sister.

This notice was submitted by Daniel Buttry and Michael R. Philpott.

## In Memoriam

# Eric M. Pell (1923-2013)



ERIC M. PELL

President of The Electrochemical Society, passed away on Wednesday, August 14, in his home in Webster, New York.

Dr. Pell was born September 22, 1923 in Rättvik Sweden. In 1931, after his mother passed away, he moved with his father to Milwaukee, Wisconsin. There he completed his early education, and later attended Deep Springs Junior College in California. In 1944, Dr. Pell went to Marquette University where he earned a degree in electrical engineering. He was accepted into the Navy's radar program and was in the U.S.

Naval Reserve from 1943-1946. After his service, Dr. Pell received his doctorate in physics from Cornell University.

Dr. Pell worked for ten years as a research physicist for the General Electric Research Laboratory where he researched phenomena related to semiconductors, and electrical characteristics of n-p junctions and ionic interactions in solids. This research led to the invention of the lithium-drift nuclear particle detector, 29 publications, and eight patents.

In 1961, Dr. Pell began working for Xerox Corporation at the Joseph C. Wilson Technology Center. He was charged with building a research group for solid state physics, and assumed various research and development management capacities. Dr. Pell became the manager of Xerox's Fundamental Research Laboratory in 1965, where he was able to work with physicist Chester Carlson, the inventor of xerography.

Dr. Pell served as the Organizing Chair and Co-Editor for the 1968 International Conference on Electrophotography, and in 1969 he became the Chair of the Ad Hoc Committee on Electrography for the Institute of Electrical and Electronics Engineers. The same year, Dr. Pell was the Editor of the proceedings of the 1969 Third International

Conference on Photoconductivity. This was also the year that Dr. Pell first became a member of The Electrochemical Society.

After joining ECS, Dr. Pell immediately became involved in the Electronics Division, serving as Vice-Chair for General Electronics in 1969-1970, and as Chair in 1971-1972. He later served on the Technical Affairs Committee, becoming Chair in 1978-1979, and was also the Chair of the Honors and Awards Committee from 1974-1977.

Dr. Pell was elected Vice-President of ECS in 1977. He became the President of The Electrochemical Society in 1980-1981, and was awarded an Honorary Membership in 1983.

Dr. Pell's career at Xerox led him to become the manager of their Webster Physics Research Laboratory in 1985. There he was able to recruit, train, and manage the company's team researching amorphous photoconductors.

In 1986, Dr. Pell was presented with the Edward Goodrich Acheson Award for distinguished contributions to the advancement of the objects, purposes, and activities of ECS.

Thirteen years later, in 1989, Dr. Pell retired from his job at Xerox and began working on his book, *From Dreams to Riches*, a history of xerography, which was later published in 1998.

Dr. Pell was a recipient of the Marquette University Distinguished Alumnus of the Year Award in 2012. In his interview for the award write up he is quoted as saying, "I define success as achievement of one's personal ambitions and enjoying the satisfaction one experiences as a result."

Erik M. Pell was active in many organizations throughout his lifetime. He was a Fellow of the American Physical Society, served on the Cornell Council, and was a Senior Member of the Institute of Electrical and Electronics Engineers. He served as Chair of the Cornell Graduate School Fund, Trustee of Deep Springs, Trustee of The Harley School of Rochester, and President of the Alumni of Deep Springs and Telluride Association. Dr. Pell was a member of the Society of Professionals, Scientists, and Engineers, the American Association for the Advancement of Science, and the New York Academy of Sciences. He was also involved in the scientific research society Sigma Xi, as well as the honors societies Phi Kappa Phi, Tau Beta Pi, Eta Kappa Nu, and Sigma Pi Sigma.

Dr. Pell was extremely accomplished, and led a fulfilling and challenging life. He will be remembered by all for his innumerable contributions to The Electrochemical Society, as well as many others.