

## Jamal Dean Receives an Educator Award in Canada and Honorary Degree in Spain

The J. M. Ham Outstanding Engineering Educator Award of IEEE Canada was established in 1994. It commemorates James Milton Ham a Canadian engineer and the tenth President of the University of Toronto. The award is given to outstanding Canadian engineers recognized for sharing their technical and professional abilities through teaching and in 2014 it was bestowed on **JAMAL DEAN**. The specific citation reads: "For outstanding contributions in engineering education and dedication to students."

Professor Deen has been an educator and mentor for about forty years, beginning at the University of Guyana and later as a research assistant at Case Western Reserve University. He was a Research Engineer (1983-1985) and then an Assistant Professor (1985-1986) at Lehigh University, Bethlehem, Pennsylvania. In 1986, he

teaching and the opportunities this has afforded him to improve his skills as an educator and teacher and to adapt effectively to these changing times.

A second honor was bestowed on Jamal Dean in Spain at the Universitat Rovira I Virgili (URV) in Tarragona. There he received the highest university honor – Doctor Honoris Causa. During the ceremony the Rector of the University Professor Frances Xavier Grau Vidal stated "The investiture ceremony of an honorary degree is the highest solemnity to the university community. With this event we integrate into our faculty those who have distinguished themselves by their activity in favor of the arts, culture, science, or simply, humanity, and this event also preserves the liturgy that evokes the crucial role that for centuries the university has had in society, the development of which preserves and advances knowledge and transmits it to new generations. Through this recognition, which is selective and judicious, the University is also defined."

Jamal Dean was selected for this honor because he is one of the most prominent researchers in the international arena for his contributions to the science of electrical engineering, especially semiconductor devices and sensors. Prof. Deen has made very important contributions to the field of electronic and photonic devices, and has won the most prestigious awards in the field. He has contributed greatly to the understanding of semiconductor physics and devices, and to improving semiconductor technology. He was associated with URV through collaborative research in 2004. His ties to URV will certainly be strengthened after receiving the honorary degree, due to the high level of his academic and scientific contributions and the value and recognition he has achieved as a person and researcher worldwide.

In his degree acceptance speech Jamal Deen thanked his nominator and the University Senate for selecting him. He also thanked his family, stating, "To them, I owe all that I have achieved." Then, he gave special thanks to the many exceptional teachers he was fortunate to have. He stated, "These dedicated teachers spared no efforts in guiding us toward academic excellence. They instilled in us the value of hard work, dedication and perseverance, and taught us how to use our education and skills to make intelligent choices."

He provided three examples of his life as an academic. The first was related to his co-invention

of the patented solid-state microscope for quantitative microscopy in image cytometry to optimize spatial, photometric and spectral resolution, in the late 1980s. The second, with his industrial collaborator, Nortel, was on innovations in experimental techniques to solve an important reliability problem as well as developing robust, calibrated models to optimize the manufacturability of avalanche photodiodes, and designs for succeeding generations of optical detectors to be used in fiber optic communications systems. The third, and another outcome of his work in industry, was the recognition of the importance of electrical noise. This was counter to the popular trends where most researchers concentrated on the signal and its enhancements.

He then went on to describe some of his current multi-disciplinary research and technology development of low-cost sensors for water quality monitoring. This research is motivated by the fact that the



**FRANCES XAVIER GRAU VIDAL**, Rector of the university, welcoming **JAMAL DEEN** (right) into the URV community.

joined the School of Engineering Science, Simon Fraser University, Vancouver, British Columbia. In 1999, he assumed his current position as Professor of Electrical and Computer Engineering at McMaster University, Hamilton, Ontario.

The annual IEEE Canada awards ceremony on May 5, 2014 was attended by about three hundred people. Many students who were present at the event commented on his generosity, kindness, and pleasant personality and how approachable as a mentor he is, in spite of his world-class standing and credentials.

While accepting the Ham medal, Prof. Deen sincerely thanked his family for their continuous love and support over the years. He gave special thanks to students and researchers he was fortunate to mentor and collaborate with, and the many opportunities they afforded him to grow as a collaborator, coach, motivator and communicator. Professor Deen also commented on the evolution of university

availability of safe drinking water is fundamental to our health. He stated that their “on-going research is aimed at the development of scalable engineering solutions in portable, real-time monitoring of water resources so that timely information can be obtained about the quality of water.” He also emphasized that “an often overlooked aspect of these multi-disciplinary projects is communication. In fact, communicating effectively is critical, not only for researchers in arts or humanities, but especially for those in other fields such as engineering, science or medicine who may be collaborating on large projects locally or globally.”

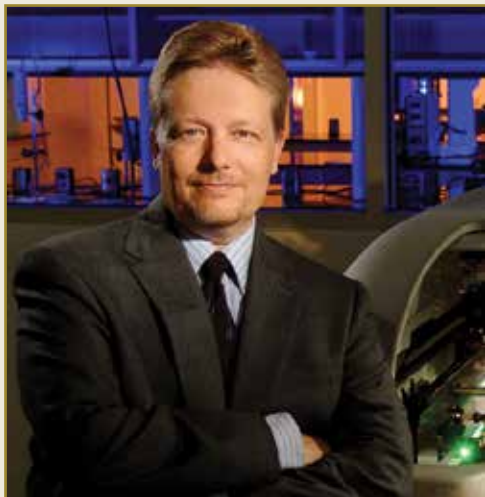
In the last part of his acceptance speech, he shared some inspiring words of wisdom, especially for the younger colleagues present at the ceremony. He stated: “Be prepared for the unexpected. It may be upon you before you know it. So adapt and use your knowledge and skills to create novel and workable solutions. And do not be afraid of controversial areas of research, even if there is opposition from mainstream ‘experts,’ you may be far ahead of your competitors.

Through unwavering, intelligent dedication, and a high standard for research work and ethics, you may find exceptional rewards and personal satisfaction. And recognizing that education is the key to a great and satisfying future, we must prepare for it today for a better tomorrow.” He concluded by “encouraging all to work hard, persevere and adapt. And always remember, humility is the mark of greatness. Also, even though we are grown and have successful careers and lives, we should not forget to thank our family, teachers and mentors for their support and guidance throughout our careers. And as we look to the future, we must remember that we are privileged ambassadors of change.”

The investiture ceremony of Prof. Deen’s Doctor Honoris Causa was on Friday, 7 March 2014. Jamal Deen is a Fellow of ECS and a recipient of the ECS DS&T Division’s Callinan Award. ■

*Adit Kumar contributed to this report.*

## Eric Wachsman Receives IAHE Award



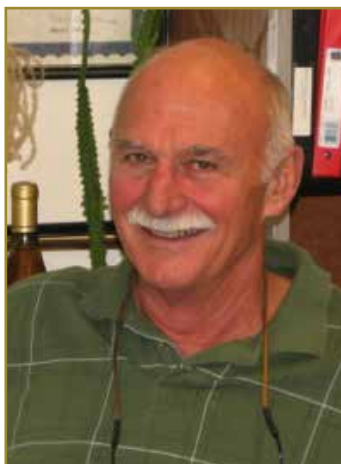
ERIC WACHSMAN

**E**RIC WACHSMAN, ECS chair of the Interdisciplinary Science and Technology Subcommittee, was presented with the International Association for Hydrogen Energy (IAHE) Sir William Grove Award. Dr. Wachsman received the award from the International Association for Hydrogen Energy, at the World Hydrogen Energy Conference, in Gwangju Korea, June 15-20, 2014. The award is given to recognize leadership in a specified electrochemical area. This area includes fuel cells and electrolyzers, and other electrochemical means relating to hydrogen processing. This award is presented to individuals who have contributed to forward advancement in this honorable field of work. Dr. Wachsman was acknowledged for his service and exemplary research in science and technology of solid oxide fuel cells development.

Sir William Grove was the inventor of the fuel cell in England in 1839, producing electricity and water from hydrogen and oxygen. Grove is known as “Father of the Fuel Cell.” Grove invented the nitric acid cell and the gas voltaic battery. ■

*In Memoriam*

## C. Michael Elliott (1949-2014)



C. MICHAEL (MIKE) ELLIOTT

Burlington (1977-1981). He served as the Chemistry Department chair from 1999 to 2003. Since 2008 he was at CSU as the Co-Director for the Colorado Renewable Energy Collaboratory, Center for Revolutionary Solar Photoconversion. He has to his name at least 120 professional literature contributions, covering a variety of topics, most notably in the area of materials for solar energy applications and electrochemical electron transfer. He also held five U.S. and international patents on the novel materials he developed. He was talented synthetic chemist and often worked, even as a full professor, alongside his students in the laboratory.

**C. MICHAEL (MIKE) ELLIOTT** departed this world suddenly on July 2, 2014. He was born on August 1, 1949 in Cedartown, Georgia. His bachelor of science in 1971 from Davidson College in North Carolina was followed with a PhD in 1975 from the University of North Carolina, Chapel Hill. He completed his postdoctoral work at Stanford University under J. P. Collman. Prior to joining the Chemistry Department at Colorado State University in 1981 he was an Assistant Professor of Chemistry at the University of Vermont

Professor Elliott was a committed teacher who taught courses spanning from introductory chemistry to advanced topics. Professor Elliott loved spending time with students, and through his contributions to student education, he graduated over 30 PhD and MS students and mentored countless others, including undergraduate research students as well as high school students who often spent time in his labs. He was always willing to talk to anyone about their science or his. By no means, though, he was an easy grader, and he would expect precision – to use the proper units in measurement as well as to use an adverb in language where some sloppily used an adjective instead. He was also known to give in his graduate courses oral exams; a monumental task compared to grading written essays, which he claimed gave him much better picture of overall knowledge the students possessed.

Virtually every member of the Chemistry Department at CSU sought Mike's scientific guidance at some point or another. His amazing passion for teaching and research has been recognized by numerous distinctions and awards, which include the Phillips Petroleum Award for Excellence in Research and Teaching (CSU), College of Natural Sciences Professor Laureate, Outstanding Science Mentor Award and National Academy of Science Inter-academy Exchange Fellow. In 2012 he was elected a Fellow of the American Association for the Advancement of Science. He was the Chair of the Gordon Research Conference on Electrochemistry in 1994.

Prof. Elliot was member of ECS and its Physical and Analytical Electrochemistry Division since 1982. He was also a member of the American Chemical Society, Society of Electroanalytical Chemistry, where he served on the Board of Directors (1989-1994) and The American Association for the Advancement of Science. ■

## ECS Future Meetings

### 227<sup>th</sup> Spring Meeting

Chicago, IL

May 24-28, 2015

Hilton Chicago



### 228<sup>th</sup> Fall Meeting

Phoenix, AZ

October 11-16, 2015

Hyatt Regency Phoenix & Phoenix Convention Center

### 229<sup>th</sup> Spring Meeting

San Diego, CA

May 29-June 3, 2016

Hilton San Diego Bayfront & San Diego Convention Center

### PRiME 2016

Honolulu, HI

October 9-14, 2016

Hawaii Convention Center & Hilton Hawaiian Village

### 231<sup>st</sup> Spring Meeting

To Be Announced

### 232<sup>nd</sup> Fall Meeting

National Harbor, MD

(greater Washington, DC area)

October 1-6, 2017

Gaylord National Resort and Convention Center

Go to [electrochem.org/meetings](http://electrochem.org/meetings) for the latest information.