2011 FIE CONFERENCE AWARDS PRESENTATIONS

Thursday, October 13 .............................................................. Terman/Rigas Awards Luncheon
11:45 a.m.-1:15 p.m.
  ASEE ECE Division Hewlett-Packard Frederick Emmons Terman Award
  IEEE Education Society Hewlett-Packard/Harriet B. Rigas Award
  IEEE Education Society William E. Sayle Award for Achievement in Education

Friday, October 14 ................................................................. Awards Banquet
6:30 p.m.-9:30 p.m.

  Frontiers in Education (FIE) Conference Awards
    FIE 2009 Benjamin J. Dasher Best Paper Award
    FIE 2009 Helen Plants Award
    FIE Ronald J. Schmitz Award

  IEEE Education Society
    Best Transactions on Education Paper Award
    Distinguished Member Award
    Edwin C. Jones, Jr.  Meritorious Service Award
    Chapter Achievement Award
    Distinguished Chapter Leadership Award
    Student Leadership Award
    Mac Van Valkenburg Early Career Teaching Award

  ASEE Educational Research and Methods Division
    Distinguished Service Award
ASEE ECE Division Hewlett-Packard
Frederick Emmons Terman Award
Presented by Rob Bouzon

For an outstanding young electrical engineering educator in recognition of his contribution to the profession

Professor Tony Givargis received the Computer Science MS and PhD degrees from University of California, Riverside in 1997 and 2001 respectively. He is currently a Professor in the Department of Computer Science at the University of California, Irvine. His research interests include all aspects of embedded system design, in particular, embedded software and multi-core systems-on-a-chip architectures. He has published over 70 peer-reviewed conference and journal papers, over 10 issued patents, and a number of best paper awards. He is the co-author of two popular textbooks on embedded system design and has received numerous teaching, service and research awards.

Past Recipients
'69 Michael Athans
'70 Andrew P. Sage
'71 Joseph W. Goodman
'72 Taylor L. Booth
'73 Sanjit Mitra
'74 Leon Ong Chua
'75 Michael L. Dertouzos
'76 Stephen W. Director
'77 J. Leon Shohet
'78 Ronald A. Rohrer
'79 Martha E. Sloan
'80 V. Thomas Rhyne
'81 Ben Garland Streetman
'82 Toby Berger
'83 Daniel P. Siewiorek
'84 Mathukumalli Vidyasagar
'85 Peter S. Maybeck
'86 Lance A. Glasser
'87 Kenneth L. Short
'88 Adel S. Sedra
'89 Frank L. Lewis
'90 Jerry D. Gibson
'91 Barry W. Johnson
'92 H. Vincent Poor
'93 Mark S. Lundstrom
'94 Supriyo Datta
'95 Perinkolam P. Vaidyanathan
'96 Prithviraj Banerjee
'97 Edward A. Lee
'98 Edwin K. P. Chong
'99 Randy H. Katz
'00 Sergio Verdú
'01 Zoya Popovic
'02 Theodore S. Rappaport
'03 Wayne Wolf
'04 Keshab K. Parhi
'05 Ali H. Sayed
'06 Vijay K. Madisetti
'07 Russel Jacob (Jake) Baker
'08 Keith M. Chugg
'09 David Tse
'10 Bhaskar Krishnamachari
ASEE ECE Division Hewlett-Packard Frederick Emmons Terman Award
(continued)

About the Terman Award

The Frederick Emmons Terman Award is presented annually to an outstanding young electrical engineering educator by the Electrical and Computer Engineering Division of the American Society for Engineering Education. The Terman Award, established in 1969 by the Hewlett-Packard Company, consists of $5,000, an engraved gold-plated medal, a bronze replica of the medal mounted on a walnut plaque, and a parchment certificate.

The recipient must be an electrical engineering educator who is less than 45 years old on June 1 of the year in which the award is presented and must be the principal author of an electrical engineering textbook published before June 1 of the year of his/her 40th birthday. The book must have been judged by his/her peers to be an outstanding original contribution to the field of electrical engineering. The recipient must also have displayed outstanding achievements in teaching, research, guidance of students, and other related activities.

About Frederick Emmons Terman

Frederick Emmons Terman received his A.B. degree in chemistry in 1920, the degree of engineer in electrical engineering in 1922 from Stanford University, and his Sc.D. degree in electrical engineering in 1924 from Massachusetts Institute of Technology. From 1925-1965, he served as instructor, then professor of electrical engineering, executive head of the Electrical Engineering Department, dean of the School of Engineering, provost, vice president, and finally, as acting president of Stanford University.

Among the many honors bestowed upon him were: the IEEE Medal of Honor; the first IEEE Education Medal; the ASEE’s Lamme Medal; the 1970 Herbert Hoover Medal for Distinguished Service to Stanford University; an honorary doctor’s degree by Harvard; a decoration by the British government; the Presidential Medal for merit as a result of his war work; and the 1976 National Medal of Science from President Ford at a White House ceremony.

Dr. Terman was a professor at Stanford University when William Hewlett and Dave Packard were engineering students there. It was under Dr. Terman’s guidance in graduate work on radio engineering that Mr. Hewlett built the first tunable and automatically stabilized Weinbridge oscillator. Partially through Dr. Terman’s urging, Hewlett and Packard set up their partnership in an old garage with $538 and the oscillator as their principal assets.

Dr. Terman died in December 1982. It is in appreciation of his accomplishments and guidance that Hewlett-Packard is proud to sponsor the Frederick Emmons Terman Award.
IEEE Education Society Hewlett-Packard
Harriet B. Rigas Award
Presented by Rob Bouzon

For contributions in developing and disseminating innovative educational programs to attract and retain women in electrical and computer engineering

Dr. Karen Panetta is a Fellow of the IEEE. Dr. Panetta received the B.S. in Computer Engineering from Boston University, and the M.S. and Ph.D. in Electrical Engineering from Northeastern University. She is the Editor-in-Chief of the IEEE Women in Engineering Magazine and Editor of the IEEE Boston “Reflector” Newspaper. She serves as the 2011 Chair of the IEEE Boston Section, which has over 8500 members. During 2009-2007, she served as the World Wide Director for IEEE Women in Engineering, overseeing the world’s largest professional organization supporting women in engineering and science.

She is a Professor of Electrical and Computer Engineering at Tufts University and Director of the Simulation Research Laboratory. Her research focuses on developing efficient algorithms for simulation, modeling, signal and image processing for security and biomedical applications. She is also the co-founder of BA Logix Inc. and serves as the company’s Chief Research Scientist.

Before joining the faculty at Tufts, Dr. Panetta was employed as a computer engineer at Digital Equipment Corporation. Her research in Simulation and Modeling has won her research team five awards from NASA for “Outstanding Contributions to NASA Research” and “Excellence in Research”. She is a NASA Langley Research Scientist “JOVE” Fellow, is a recipient of the NSF Career Award and won the 2003 Madeline and Henry Fischer Best Engineering Teacher Award. Dr. Panetta was also awarded a Mass High Tech All-Star by Mass High Tech Magazine. She is the recipient of the 2006 Boston University Outstanding Alumni Award and was a recipient of the “Be the Change” award from the Massachusetts Conference for Women. She is the 2009 Norm Augustine Award recipient from the National Academies of Engineering and Science, American Association of Engineering Societies. In 2010, the IEEE recognized Dr. Panetta by awarding her the IEEE Educational Activities Board, Major Educational Innovation Award. Karen is the 2011 Anita Borg Institute, “Women of Vision Award” winner in the Social Impact category.

Dr. Panetta serves on the Boston University Engineering Alumni Board and is a board member for the Center for Balance by Design. She is also a member of the ACM, AAAS, AWIS, SWE, SPHE, Tau Beta Pi, ASEE, Eta Kappa Nu and the Society for Computer Simulation. She is the faculty advisor to both the Tufts SWE and IEEE student chapters.
IEEE Education Society Hewlett-Packard Harriet B. Rigas Award (continued)

About the Rigas Award

The Harriet B. Rigas Award is presented annually to recognize outstanding faculty women who have made significant contributions to electrical/computer engineering education. The award consists of an honorarium, plaque, certificate, and Frontiers in Education Conference registration.

The recipient must be a tenured or tenure track woman faculty member in an ABET-accredited engineering program in the United States, with teaching and/or research specialization in electrical/computer engineering.

About Harriett B. Rigas

Dr. Harriett B. Rigas (1934-1989), an IEEE Fellow, was an electrical engineer with an international reputation for her hybrid computer and computer simulation research. At Washington State University between 1966 and 1984, she was eventually both full professor and chair of Electrical and Computing Engineering School. Later she chaired larger departments at the Navy's Postgraduate School in Monterey and, at the time of her death, Michigan State University.

Her achievements in engineering research, administration, and service were widely recognized. In 1975-76, Harriett was a Program Director at the National Science Foundation and, over the years, a member of numerous panels and advisory committees at both the NSF and the national Academy of Sciences.

Professor Rigas' success was achieved within a profession and within university administrative structures where there were very few women. Her character and courage were both evident in her strong advocacy of advancement for women. She was involved both locally and nationally in the Society of Women Engineers.
IEEE Education Society William E. Sayle II Award for Achievement in Education

For outstanding technical contributions and service in computer science and engineering education and accreditation

Susan E. Conry is Distinguished Service Professor at Clarkson University. She received the B.S. degree in mathematics from Rice University in 1971 and the M.S. and Ph.D. degrees in electrical engineering from Rice University in 1973 and 1975, respectively. Since 1975, Dr. Conry has been at Clarkson University in Potsdam, New York, where she has held appointments in the Department of Mathematics and Computer Science and in the Department of Electrical and Computer Engineering. She served as chair of the Department of Electrical and Computer Engineering for five years and has been Director of Software Engineering since 2007.

Dr. Conry’s research interests lie in the areas of distributed artificial intelligence and parallel and distributed systems, with focus on coordination problems in problem-solving environments involving multiple intelligent agents. Much of this work is directed towards eventual development of a theory of rational actions by an intelligent agent. Her work has also been concerned with software engineering pedagogy and the design of large software systems.

Dr. Conry has been engaged in activities focused on high quality engineering education for many years. Dr. Conry was a member of the joint task force of the ACM and the IEEE Computer Society that formulated Computing Curricula 1991 and was also a reviewer of Computer Engineering Curricula 2004. More recently, she has been involved as part of the steering team for the interim review of Computer Engineering 2004 for potential revision. Dr. Conry served as a member of the IEEE Education Society Administrative Committee from 2003-2009 and as Chair of the ASEE Software Engineering Constituent Committee in 2010 and 2011.

She has been engaged in accreditation activities since 1985. Dr. Conry served the Computing Sciences Accreditation Commission (CSAC) of CSAB as a program evaluator, commissioner, and member of the executive committee representing the IEEE Computer Society from 1985 until 1992. In 1991-92, she chaired CSAC. She then represented the IEEE Computer Society on the CSAB Board of Directors from 1992 until 1999, serving as President of CSAB Board of Directors in 1997-98. During her tenure as President of CSAB, the memorandum of understanding between CSAB and ABET which resulted in the merging of their activities was signed. Dr. Conry has also served as a member of EAC of ABET since 2002 and has served on the IEEE Committee on Engineering Accreditation Activities (CEAA). She is currently chair of the Engineering Accreditation Commission of ABET.

Dr. Conry has been designated IEEE Fellow, ABET Fellow, and CSAB Fellow. She has also been recipient of the 2005 IEEE Educational Activities Board Meritorious Achievement Award in Accreditation Activities and the IEEE Computer Society Meritorious Service Award in 1991.
William E. Sayle II Award for Achievement in Education (continued)

About the Sayle Award

The William E. Sayle II Award is presented to recognize a member of the IEEE Education Society who has made significant contributions over a period of years in a field of interest of the IEEE Education Society. The award consists of a plaque, a certificate, and paid registration to the Frontiers in Education Conference.

About William E. Sayle II

Dr. William (Bill) E. Sayle received his BSEE and MSEE degrees from the University of Texas at Austin and his Ph.D. from the University of Washington. He joined the faculty in electrical engineering at Georgia Institute of Technology in 1970, just as Georgia Tech was beginning the transition from an undergraduate institution to a research university. He was the ECE associate chair for undergraduate affairs from 1988-2003 and, following retirement in 2003, served as director of undergraduate programs at Georgia Tech-Lorraine in France until 2007. Bill was a tireless advocate for students, putting in countless late night and weekend hours in addressing student issues, assigning teaching assistants, and meeting with prospective students and parents.

Throughout his career, Bill touched the lives of many people in the worldwide academic community. He was a leader and a pioneer in many areas. In the 1970s, he was a founding member of the IEEE Power Electronics Society, where he served in many leadership roles over the years. He was a champion of diversity and in recruiting underrepresented minorities and women to engineering and science, long before it became a national issue. He visited many high schools on behalf of the Southeastern Consortium for Minorities in Engineering, a role where he made many friends for Georgia Tech among high school administrators and students in the southern part of Georgia.

In his 30-year career at Georgia Tech, Bill received the ECE outstanding teacher award twice, as well as the Georgia Tech outstanding teacher award and outstanding service award. Bill lent his voice and efforts to Georgia Tech faculty governance throughout his career, serving as an elected member of Institute-level committees, the Academic Senate, and the Executive Board.

Bill was a long-time member and active volunteer in the IEEE Education Society and the Electrical and Computer Engineering Division of ASEE. He was a Fellow of both IEEE and ASEE. He was the recipient of the Education Society's 2001 Meritorious Service Award and 2004 Achievement Award and of the ECE Division's 2001 Meritorious Service Award and 2006 ECE Distinguished Educator Award. Bill was the General Chair of the 1995 Frontiers in Education (FIE) Conference, which is still remembered for its all-vegetarian menu, and received the 1996 Ronald J. Schmitz Award for outstanding service to FIE.

Much of Bill's professional career was devoted to engineering accreditation, serving at various times as member and chair of the IEEE Committee on Engineering Accreditation Activities and the IEEE Accreditation Policy Council. He participated in more than 20 visits as a program evaluator, in addition to serving as a team chair and member of the Engineering Accreditation Commission of ABET for more than five years. Bill received the IEEE Educational Activities Board Meritorious Achievement Award in Accreditation Activities in 2004.

Dr. Sayle passed away on February 2, 2008.
Inconsistencies in Students’ Approaches to Solving Problems in Engineering Statics FIE 2010, Session F3G

Jeffrey L. Newcomer is Professor of and program coordinator for Manufacturing Engineering Technology at Western Washington University. He earned a Ph.D. in Mechanical Engineering from Rensselaer Polytechnic Institute in 1994. He has been studying students’ conceptual understanding of Engineering Statics and related topics, with a focus on students’ understanding of equilibrium concepts, since 2004. The work reported in the Dasher paper grew out of these studies when he observed that students do not consistently apply equilibrium principles in different contexts. In the paper, through analysis of student explanations of their answers to concept questions and answer selection patterns on the Statics Concept Inventory, he showed that the majority of students apply equilibrium principles differently when considering equivalence problems than they do for equilibrium problems. The implications of this is that when it comes to equilibrium, students do not have deep-seated misconceptions that must be corrected, but that students are reacting to context; and engineering education research needs to consider different models of student behavior when confronting students’ specific difficulties. He is continuing to explore what contexts and contextual elements are more or less likely to result in students consistently applying equilibrium concepts correctly.

Past Recipients
’73 Walter D. Story
’74 Richard Hooper
’75 John J. Alan III and J.J. Lagowski
’76 John Hipwell and David Blaume
’77 John W. Renner
’78 Albert J. Morris
’79 Donald R. Woods, Cameron M. Crowe, Terrence W. Hoffman, and Joseph D. Wright
’80 Marilla D. Svinicki
’81 Martha Montgomery
’82 A.L. Riemenschneider and Lyle D. Feisel
’83 Davood Tashayyod, Banu Onaral, and James M. Trosino
’84 Bill V. Koen
’85 Bill V. Koen
’86 Richard S. Culver
’87 David A. Conner, David G. Green, Thomas C. Jannett, James R. Jones, M.G. Rekoff, Jr., Dennis G. Smith, and Gregg L. Vaughn
’88 Richard M. Felder
’89 Richard C. Compton and Robert York
’90 Cindy A. Greenwood
’91 Robert Whelchel
’92 William LeBold and Dan D. Budny

’93 Daniel M Hull and Arthur H. Guenther
’94 Burks Oakley II and Roy E. Roper
’95 Curtis A. Carver, Jr. and Richard A. Howard
’96 Val D. Hawks
’97 Edwin Kashy, Michael Thoenessen, Yihjia Tsai, Nancy E. Davis, and Sheryl L. Wolfe
’98 A.B. Carlson, W.C. Jennings, and P.M. Schoch
’99 Wayne Burleson, Aura Ganz, and Ian Harris
’00 David W. Petr
’02 Zeynep Dilli, Neil Goldsman, Lee Harper, Steven I. Marcus, and Janet A. Schmidt
’03 Glenn W. Ellis, Gail E. Scordilis, and Carla M. Cook
’04 Matthew W. Ohland, Guiui Zhang, Brian Thorndyke, and Timothy J. Anderson
’05 Gregory A. Moses and Michael Litzkow
’07 Donna Riley and Gina-Louise Sciarra
’08 Eric Hamilton and Andrew Hurford
’09 Steve Krause, Robert Culbertson, Michael Oehrtman, Marilyn Carlson, Bill Leonard, C.V. Hollot, and William Gerace
’10 Glenda Stump, Jenefer Husman, Wen-Ting Chung and Aaron Done
Frontiers in Education Conference Benjamin J. Dasher Best Paper Award (continued)

About the Dasher Award

The Benjamin Dasher Best Paper Award is given to the best paper presented at the annual Frontiers in Education Conference, as demonstrated by technical originality, technical importance and accuracy, quality of oral presentation, and quality of the written paper appearing in the Conference Proceedings. Papers are nominated for the award by reviewers.

A committee with representation from each of the organizing societies (ERM, IEEE Ed. Soc., IEEE Comp. Soc.) is formed to review nominated papers. During the FIE meeting, the committee attends presentations of the nominated papers. The committee then makes a final recommendation to the FIE Planning Committee for the Ben Dasher Award winner based on the overall quality of both the paper and the presentation.

About Benjamin J. Dasher

Benjamin J. Dasher was born December 27, 1912 in Macon, Ga. He earned his bachelor’s and master’s degrees in electrical engineering in 1935 and 1945, respectively, and graduated with a doctorate in electrical engineering in 1952 from the Massachusetts Institute of Technology. At MIT, Dr. Dasher worked on the electronics of instrumentation of electromechanical transducers and analog-to-digital converters. He was the author of “Dasher’s method” for synthesis of resistance-capacitance two-port networks, which is found in standard textbook treatments.

While at Georgia Tech, Dr. Dasher served as a graduate assistant in 1936, then as an instructor in 1940, and became an assistant professor in 1945. While earning his PhD at MIT, he was an instructor from 1948-51. Before finishing with his PhD, he became an associate professor at Georgia Tech in 1951, was promoted to professor in 1952, and became director of the School of Electrical Engineering in 1954, where he served in that capacity until 1969. In 1968, Dr. Dasher was appointed associate dean in the College of Engineering. At Georgia Tech, Dr. Dasher served as director of network synthesis projects and transistor oscillator projects. His fields of interest included advanced network theory, electronic theory, electronic circuits, electrical engineering education, machine translation, speech analysis, and pattern recognition. He was credited for bringing undergraduate engineering education to the forefront at Georgia Tech and for increasing interactions between undergraduates and industry.

Dr. Dasher was a member of Phi Kappa Phi, ASEE, Sigma Xi, and the American Association of University Professors; he was a Fellow of both the IEEE and the Institute of Radio Engineers. He served as a regional director for IEEE and as the chair for the Atlanta section of IEEE; he was on numerous committees for IRE, AIEE, and IEEE. He served as President of the IEEE Education Group in 1970-71.

Ben Dasher organized the first Frontiers in Education Conference; it was held in Atlanta in 1971, and attracted 100 participants. There were 34 papers in six technical sessions.

Dr. Dasher died of congestive heart failure on December 13, 1971 in Houston, Texas.
Frontiers in Education Conference Helen Plants Award Best Nontraditional Session at FIE 2010

“A War of Words: Using Sticky Language to Effect Change in Engineering Education” FIE 2010, Session T3B

Dr. Mark Somerville is a Professor of Electrical Engineering and Physics at Olin College, where he also serves as Associate Dean for Faculty Affairs and Research. Dr. Somerville joined the faculty at newly-founded Olin College in 2001; at Olin he served on the committee that designed the inaugural curriculum for the institution, and has played leadership roles in strategic planning, as chair of the Engineering program, and as Associate Dean for Academic Programs and Curricular Innovation. Dr. Somerville's interest in engineering education focuses largely on facilitating change processes and on the application of collaborative design techniques to curriculum revision; in this capacity he has worked closely with a variety of institutions, both nationally and internationally. His educational background includes a PhD and Master's in electrical engineering from MIT, a Master's in physics from Oxford University, and bachelor's degrees in both electrical engineering and liberal arts from the University of Texas at Austin.

Based in Champaign, Illinois, Dave Goldberg is a leadership coach to students, faculty, and administrators in higher education as well as technology managers and professionals around the world. Prior to founding ThreeJoy Associates (www.threejoy.com), Dave was the Jerry S. Dobrovolny Distinguished Professor in Entrepreneurial Engineering at the University of Illinois at Urbana-Champaign, and together with Mark Somerville and Sherra Kerns, he co-founded the Olin-Illinois Partnership (http://ifoundry.illinois.edu/oip). Dave holds BSE, MSE, and PhD degrees in Civil Engineering from the University of Michigan and a Certificate in Leadership Coaching from Georgetown University. His two most recent books are The Entrepreneurial Engineer (Wiley, 2006) and Philosophy and Engineering: An Emerging Agenda (edited with Ibo van de Poel, Springer 2010).

Sherra E. Kerns is the F. W. Olin Distinguished Professor of Electrical and Computer Engineering and Founding Vice President for Innovation and Research at Franklin W. Olin College of Engineering. She is a Fellow of IEEE for her technical achievements and Fellow of ASEE for her work in engineering education. She served as the 110th President of ASEE. Since coming to Olin in 1999, her educational work has focused on furthering innovation and excellence in engineering education -- on five continents so far.
Russell Korte is an Assistant Professor in Human Resource Education, College of Education at the University of Illinois at Urbana-Champaign. He has been a co-investigator for the Collaborative Research Lab at Stanford University, a research assistant for the Center for the Advancement of Engineering Education, and is currently a Fellow with the Illinois Foundry for Innovation in Engineering Education project in the College of Engineering at the University of Illinois at Urbana-Champaign. His research investigates how engineering students navigate their education and how engineering graduates transition into the workplace—specifically studying how they learn the social norms of organizations and navigate the social and political systems in the workplace. Research interests include philosophy, learning and performance, socialization, adult education, social theory, and organization studies.

Past Recipients
‘80 Helen Plants
‘81 Jim Russell and John C. Lindenlaub
‘82 Karl A. Smith and Harold Goldstein
‘83 E. Dendy Sloan and Charles F. Yokomoto
‘84 David W. Johnson and Karl A. Smith
‘85 Billy V. Koen
‘86 Martha A. Nord and Patricia H. Whiting
‘87 John C. Lindenlaub
‘89 Karl A. Smith
‘91 Troy C. Kostek
‘92 Barbara M. Olds and Ronald L. Miller
‘93 John C. Lindenlaub and Alisha A. Waller
‘94 Billy V. Koen
‘95 Burks Oakley II and Mark A. Yoder
‘96 Alisha A. Waller, Edward R. Doering, and Mark A. Yoder
‘97 Karl A. Smith, James D. Jones and Elizabeth Eschenbach
‘98 Alice Agogino
‘99 Melinda Piket-May and Julie L. Chang
‘03 William C. Oakes
‘04 Susan M. Lord, Elizabeth A. Eschenbach, Alisha A. Waller, Eileen M. Cashman, and Monica J. Bruning
‘05 Ruth A. Streveler
‘06 Ruth A. Streveler, Karl A. Smith, and Ronald L. Miller
‘08 Maura Borrego, Lynita Newswander, and Lisa McNair
‘09 Lisa C. Benson, Sherrill B. Biggers, William F. Moss, Matthew Ohland, Marisa K. Orr, and Scott D. Schiff
‘10 Russell Korte and Karl A. Smith
Frontiers in Education Conference Helen Plants Award (continued)

About the Plants Award

The Helen Plants Award is given for the best special (non-traditional) session at the FIE conference, as demonstrated by originality, session content and presentation including the use of written materials and visual aids, and participation of session attendees.

About Helen Margaret Lester Plants

Helen Margaret Lester was born in Desloge, Missouri, in March 1925, the only child of Rollo Bertell and Margaret Stephens Lester.

She entered the University of Missouri as a journalism major, but soon switched to Civil Engineering. She received her BSCE in 1945. She joined West Virginia University in 1947 as a graduate student and Instructor in Mechanics, and received her MS in Civil Engineering in 1953. She was a Professor of Theoretical and Applied Mechanics and of Curriculum and Instruction in the Division of Education at WVU. She became Professor Emeritus, Mechanical and Aerospace Engineering in 1983. From 1985 to 1990 she served as Chair of Civil Engineering Technology at Indiana University-Purdue University - Fort Wayne.

Her husband Ken Plants had been a "bureaucrat" with the US Bureau of Mines in Morgantown - a chemical engineer with great expertise in cost estimation. Some of their "courting" evenings were spent manually checking the design calculations on the Star City, WV Bridge, designed by the Dean and State Bridge Engineer. While in Morgantown, Helen was active in Trinity Episcopal Church where she served as a Vestryman and Bishop's Man. For many years she was a Girl Scout leader. Helen died in Tulsa, Oklahoma in September 1999.

From the beginning of her academic career, she was a gifted teacher and a role model for the few women students at West Virginia University at that time. Later, she became an advocate of programmed and individualized instruction. She and Wally Venable wrote series of papers on these topics and several texts: Introduction to Statics, a Programmed Text, (1975), A Programmed Introduction to Dynamics (1967), and Mechanics of Materials, A Programmed Textbook (1974). She established the first doctoral program in Engineering Education at West Virginia University.

In 1975, the University of Missouri at Columbia recognized her with the Missouri Honor Award for Distinguished Service in Engineering. She became an ASEE Fellow in 1983 as a member of the first class of Fellows. She also received Distinguished Service Award, Western Electric Fund Award, and was an ASEE Vice-President (1974 – 1976).
Susan M. Lord is Professor and Coordinator of Electrical Engineering at the University of San Diego. She received a B.S. with distinction in Electrical Engineering and Materials Science and Engineering from Cornell University and the M.S. and Ph.D. in Electrical Engineering from Stanford University. From 1993-1997, Dr. Lord taught at Bucknell University. Author of over seventy publications, her teaching and research interests include electronics, optoelectronic materials and devices, service-learning, feminist pedagogy, lifelong learning, and engineering student persistence. Dr. Lord’s industrial experience includes AT&T Bell Laboratories, General Motors Laboratories, NASA Goddard Space Flight Center, and SPAWAR Systems Center.

Dr. Lord’s research in engineering education has been supported by several National Science Foundation (NSF) grants from programs including CAREER, instrumentation and laboratory improvement (ILI), scholarships for STEM (SSTEM), gender in science and engineering (GSE), and research in engineering education. These projects span a range of topics from engineering student persistence, to helping military veterans transition to engineering programs to optoelectronics experiments for first-year students. Since entering college, Dr. Lord has been committed to increasing diversity in engineering particularly supporting women and underrepresented minorities. In 1995, she was awarded the Eta Kappa Nu Outstanding Young Electrical Engineer Honorable Mention for “outstanding technical contributions to the field of optoelectronics and dedication to education and promoting the engineering profession for minorities and women.” She and her colleagues received the 2005 Helen Plants Award for “Feminist Frontiers.” She was named the 2010 Outstanding Engineering Educator by the San Diego County Engineering Council.

Dr. Lord has been active in the engineering education community since 1993. She is a senior member of the IEEE and Society of Women Engineers (SWE) and a member of ASEE and Tau Beta Pi. In addition to regularly presenting papers at the Frontiers in Education (FIE) and ASEE Conferences, she has held several leadership positions including FIE Steering Committee Member, General Co-Chair of FIE 2006, FIE 2005 Program Co-Chair, and elected member of administrative boards of the IEEE Education Society (EdSoc) and ASEE Education and Research Methods (ERM) Division. She served as the Vice President of EdSoc for 2007 and 2008 and the President for 2009 and 2010. She was Guest Co-Editor of a Special Issue of the International Journal of Engineering Education (IJEE) on Applications of Engineering Education Research. Dr. Lord is an Associate Editor of the IEEE Transactions on Education and a member of the Editorial Board for IJEE. She was the 2011 National Effective Teaching Institute (NETI) fellow.
Frontiers in Education Conference Ronald J. Schmitz Award (continued)

About the Schmitz Award

The Ronald Schmitz Award is given to recognize outstanding and continued service to engineering education through contributions to the Frontiers in Education Conference.

About Ronald J. Schmitz

Ronald J. Schmitz was born near Ionia, Iowa on April 25, 1934. He attended a one-room country school through the eighth grade and then, as was not uncommon at the time, decided to forgo high school and work on his father’s farm. At age 18, he joined the United States Navy. He served as an Electricians Mate, spending much of his enlistment at sea and made a round-the-world cruise aboard the USS Saipan.

In the Navy, Ron found an interest in and an aptitude for technology and recognized the need for further education. He completed a GED program in the Navy and, when he was discharged, enrolled in electrical engineering at Iowa State University. He received all his degrees there, finishing his doctorate in 1967.

In the fall of 1967, he accepted appointment as Assistant Professor in the Department of Electrical Engineering at the South Dakota School of Mines and Technology in Rapid City. He was involved in various research activities and directed both masters and doctoral students, but his strongest interest was always in teaching. Ron was a consummate teacher, patient with students who were having difficulty but intolerant of sloth. He received the School of Mines Teaching Award in 1975 and the Western Electric Fund Award for Excellence in Teaching in 1981.

Dr. Schmitz was very active in the IEEE, especially the Education Society, and served as Secretary Treasurer of the Society. He was also active in ERM and attended, and contributed to, many Frontiers in Education Conferences. He served as general chair of FIE 1981 in Rapid City.

Ron was an avid hunter and fisherman, a devoted husband and father and a faithful friend. He served his church as Lector and Lay Minister and was active as a Boy Scout leader.

**IEEE Education Society**

**Best Transactions on Education Paper Award**

*Presented by Susan M. Lord*

**IT-Adventures: A Program to Spark IT Interest in High School Students Using Inquiry-Based Learning with Cyber Defense, Game Design, and Robotics, IEEE Transactions on Education**

February, 2010, pp 71-79

**Julie A. Rursch** (IEEE M ’05-'11) received a B.S. degree in Applied Science from Western Illinois University ’85, M.S. degree in Journalism and Mass Communication from Iowa State University ’88, Ph.D. degree in Mass Communication from University of Wisconsin – Madison ’94 and is currently is a Ph.D. Candidate in the Department of Electrical and Computer Engineering at Iowa State University. She will graduate with a degree in Computer Engineering with a focus on Secure Computing. Her research includes a unique approach to critical infrastructure modeling which provides emergency planners and first responders with resilient and flexible critical infrastructure evaluation in the face of non-recurrent, disruptive events. Her approach creates a new paradigm for modeling critical infrastructure sectors, analyzing real-time physical data, and providing best fit mitigations to impending failures and responses.

At Iowa State University Rursch is very involved in the IT-Adventures high school outreach program, serving as the Assistant Director since the program’s inception in 2007. IT-Adventures is dedicated to increasing interest in information technology among Iowa high school students using three content areas: cyber defense, robotics and game design programming. Currently, more than 400 high school students participate in the year-long, inquiry-based learning activities and attend the capstone competition each year. She and co-author Luse have been instrumental in the development of the assessment and evaluation of the IT-Adventures program and Rursch earned the Iowa Technology Association Women of Innovation Award for her leadership with the IT-Adventures program. She has also taught several short courses on network security, as well as running cyber defense competitions, including a short course that was part of a National Science Foundation Scholarship for Service grant, to audiences ranging from internal auditors and security professionals to community college information technology (IT) instructors and community college students.

Prior to returning to Iowa State University to earn her second Ph.D., Rursch was the Chief Information Officer for St. Ambrose University in Davenport, IA, and then a Senior IT Executive for CampusWorks, Inc., of Sarasota, FL, providing management, supervision and technical support for networking, security and educational management systems across the United States and Canada.

**Andy Luse** (IEEE M ’05 – present) received a B.A. degree in Computer Science from Simpson College, M.S. degree in Information Assurance and Computer Engineering, MBA, and Ph.D. degree in Human Computer Interaction and Computer Engineering from Iowa State University. He is currently a Ph.D. candidate in Management Information Technology at Iowa State University. Andy’s research has focused on improving security systems for corporate security administrators including the development of systems to alleviate this burden. His approach explores the use of information visualization tools to provide assistance to network administrators for identifying possible nefarious network activity.

**Past Recipients**

'99 J.A. Buck, H. Owen, J.P. Uyemura, C.M. Verber, and D.J. Blumenthal
'00 David J. Russomanno and Ronald D. Bonnell
'01 Christopher W. Trueman
'02 Mohan Krishnan and Mark J. Paulik
'03 Tyson S. Hall, James O. Hamblen, and Kimberly E. Newman

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At Iowa State, Andy has been an active participant in the IT-Olympics competition, the competitive event for IT-Adventures program. He has provided development and support for the visualization system used during the cyber defense portion of the competition with this research being published in the *Information Security Journal* and *AIS Transactions on Human Computer Interaction*. He has also been actively involved in the development and administration of assessment and survey metrics which have been utilized to gauge the effectiveness of the IT-Adventures program as a whole.

Doug Jacobson (M’79, SM’90, F’11) received his BS degree in computer engineering from Iowa State University in 1980, his MS degree in electrical engineering from Iowa State in 1982 and a PhD degree in computer engineering from Iowa State University in 1985. He joined the faculty at Iowa State in 1986. He is currently the director the Iowa State University Information Assurance Center. Dr. Jacobson also serves as the director of undergraduate education for the department of electrical and computer engineering and he is director of the IT-Adventures program. Dr Jacobson teaches network security and information warfare and has written a textbook on network security. Dr. Jacobson's current funded research is targeted at developing robust countermeasures for network-based security exploits and large scale attack simulation environments. Additionally, he is the director of the Internet-Scale Event and Attack Generation Environment (ISEAGE) test bed project. Dr. Jacobson has given over 75 presentations in the area of computer security and has testified in front of the U.S. Senate committee of the Judiciary on security issues associated with peer-to-peer networking. Dr Jacobson is an IEEE fellow, a member of the IEEE Computer Society, and a member of ASEE, and ACM.
IEEE Education Society  
Distinguished Member Award  

For outstanding service to the Education Society as an officer and Society President, for service to IEEE and the profession, and for significant contributions in electrical and computer engineering education

Susan M. Lord is Professor and Coordinator of Electrical Engineering at the University of San Diego. She received a B. S. with distinction in Electrical Engineering and Materials Science and Engineering from Cornell University and the M.S. and Ph.D. in Electrical Engineering from Stanford University. From 1993-1997, Dr. Lord taught at Bucknell University. Author of over seventy publications, her teaching and research interests include electronics, optoelectronic materials and devices, service-learning, feminist pedagogy, lifelong learning, and engineering student persistence. Dr. Lord’s industrial experience includes AT&T Bell Laboratories, General Motors Laboratories, NASA Goddard Space Flight Center, and SPAWAR Systems Center.

Dr. Lord’s research in engineering education has been supported by several National Science Foundation (NSF) grants from programs including CAREER, instrumentation and laboratory improvement (ILI), scholarships for STEM (STEM), gender in science and engineering (GSE), and research in engineering education. These projects span a range of topics from engineering student persistence, to helping military veterans transition to engineering programs to optoelectronics experiments for first-year students. Since entering college, Dr. Lord has been committed to increasing diversity in engineering particularly supporting women and underrepresented minorities. In 1995, she was awarded the Eta Kappa Nu Outstanding Young Electrical Engineer Honorable Mention for “outstanding technical contributions to the field of optoelectronics and dedication to education and promoting the engineering profession for minorities and women.” She and her colleagues received the 2005 Helen Plants Award for “Feminist Frontiers.” She was named the 2010 Outstanding Engineering Educator by the San Diego County Engineering Council.

Dr. Lord has been active in the engineering education community since 1993. She is a senior member of the IEEE and Society of Women Engineers (SWE) and a member of ASEE and Tau Beta Pi. In addition to regularly presenting papers at the Frontiers in Education (FIE) and ASEE Conferences, she has held several leadership positions including FIE Steering Committee Member, General Co-Chair of FIE 2006, FIE 2005 Program Co-Chair, and elected member of administrative boards of the IEEE Education Society (EdSoc) and ASEE Education and Research Methods (ERM) Division. She served as the Vice President of EdSoc for 2007 and 2008 and the President for 2009 and 2010. She was Guest Co-Editor of a Special Issue of the International Journal of Engineering Education (IJEE) on Applications of Engineering Education Research. Dr. Lord is an Associate Editor of the IEEE Transactions on Education and a member of the Editorial Board for IJEE. She was the 2011 National Effective Teaching Institute (NETI) fellow.

Past Recipients

'05 Marion O. Hagler and Bukes Oakley II
'06 Ted Batchman and David A. Conner
'08 David L. Soldan
'10 Manuel Castro

Susan Lord
University of San Diego
IEEE Education Society Edwin C. Jones, Jr. Meritorious Service Award

For outstanding contributions and service in conference development, conference administration, and the Frontiers in Education Conference New Faculty Fellows program

Dr. Russ Meier is an Associate Professor of Electrical Engineering and Computer Science at the Milwaukee School of Engineering. He received his B.S., M.S., and Ph.D. degrees in Computer Engineering from Iowa State University. His teaching and research interests include embedded systems, evolvable hardware, the use of complex adaptive systems in digital architectures, and computer architecture. His teaching skills have been recognized with an Iowa State University Teaching Excellence Award and the Warren B. Boast Award for Undergraduate Teaching Excellence.

Dr. Meier maintains professional memberships in IEEE, the IEEE Computer Society, the IEEE Computational Intelligence Society, the IEEE Education Society, the American Society for Engineering Education (ASEE), and the ASEE Educational Research and Methods division (ERM).

Dr. Meier serves the engineering education community in a number of ways. As IEEE Education Society Meetings Chair, he works with colleagues from around the world to establish, plan, and maintain engineering education conferences and workshops. He serves on the Steering Committees of the ASEE/IEEE Frontiers in Education Conference (FIE) and the IEEE Engineering Education Conference (EDUCON). He is a voting member on the IEEE Education Society Administrative Committee and the Strategic Planning sub-committee. He is the IEEE Education Society Milwaukee Chapter Chair. He was the FIE2007 General Chair and served eight years as the FIE Faculty Fellows Chair. His service has been recognized with the 2009 ASEE/IEEE FIE Conference Ronald J. Schmitz Meritorious Service Award, the 2009 Engineers and Scientists of Milwaukee Young Engineer of the Year Award, and the 2010 IEEE EDUCON Meritorious Service Award.
IEEE Education Society Edwin C. Jones, Jr. Meritorious Service Award

For contributions to the IEEE Education Society through international conference development, international chapter development, and the Administrative Committee

Dr. Claudio da Rocha Brito is Professor of Electrical and Computer Engineering. Currently is the President of Sciences and Education Research Council (COPEC), President of Fishing Museum Friends Society (AAMP), President of (Brazilian) National Monitoring Committee of "Internationale Gesellschaft für Ingenieurpädagogik" (IGIP) and Vice-President of Safety, Health and Environment Research Organization (SHERO). He is Chairman of Working Group "Ingenieurpädagogik im Internationalen Kontext" and Member of International Monitoring Committee in IGIP, Council Member of "International Council for Engineering and Technology Education" (INTERTECH).

Dr. Brito received the B. Sc. in Electrical Engineering, M. Sc. In Electrical Engineering and Ph.D. in Electrical Engineering from the Polytechnic School of University of São Paulo, B. Sc. in Physics from the Institute of Physics of University of São Paulo, B. Sc. in Mathematics from the Institute of Mathematics and Statistics of University of São Paulo, B. Sc. in Mathematics Education and B. Sc. in Physics Education, both from the Faculty of Education of University of São Paulo. He was Director of Enterprise Incubators of University of São Paulo (ENUSP), Coordinator of the Cooperative Program of the Polytechnic School of University of São Paulo, Academic Coordinator of the Polytechnic School of University of São Paulo, Coordinator of the Computer Engineering Program of Polytechnic School of University of São Paulo, Coordinator of Cubatão Campus of University of São Paulo, President of Committee of Informatics of Brazilian Federation of Engineering Associations (FEBRAE) and Representative of the Engineering Computer in Network of Integration and Academic Mobility of UNESCO.

Although born in São Paulo, he received from City of Santos the title of "Santos Citizen" and he was also the first American Professor to receive the title of "International Engineering Educator" of IGIP. He also received several international medals, including two by appointment of Queen Elizabeth II of England. He has over three hundred and fifty published articles in several conferences and journals. He wrote the chapter "History of Electrical Engineering" in the book commemorating the 100 years of the Polytechnic School of USP. He was a consultant of various federal and private universities in Brazil and abroad; in many companies and magazines such as "Small Companies, Big Business." Dr. Brito has coordinated and participated in dozens of organizing committees of events in Brazil and abroad.

Dr. Melany M. Ciampi is Professor of Electrical and Computer Engineering. Currently is the President of Safety, Health and Environment Research Organization (SHERO), Vice-President of International Society for Engineering Education (IGIP), Vice-President of Sciences and Education Research Council (COPEC), Vice-President of Fishing Museum Friends Society (AAMP). She is Council Member of "International Council for Engineering and Technology Education" (INTERTECH), Member of Administrative Committee of Education.
Society of the Institute of Electrical and Electronics Engineers, Inc (IEEE-EdSoc) in (2002-2005), (2005-2008) and (2009-2012), Member of Strategic Planning Committee of Education Society of the Institute of Electrical and Electronics Engineers, Inc (IEEE-EdSoc) and Board Member of “Global Council on Manufacturing and Management” (GCMM) She was President of Brazilian Chapter of Education Society of the Institute of Electrical and Electronics Engineers, Inc (IEEE-EdSoc), State Councillor of SBPC - Brazilian Association for the Advancement of Science and Manager of International Relations of SENAC School of Engineering and Technology. She is Member of IGIP (International Society for Engineering Education), SEFI (European Society for Engineering Education), ASEE (American Society for Engineering Education), INTERTECH (International Council for Engineering and Technology Education) and RCI (Cartagena Network of Engineering). She was the first American woman Professor to receive the title of "International Engineering Educator" of IGIP. She received numerous honors due to his services to Scientific Commonwealth and Technological Cooperation among them: Award of the "Internationale Gesellschaft für Ingenieurpädagogik", Award of the International Council on Engineering and Technology Education, Award from the International Council on Engineering and Computer Education. She has over two hundred and fifty published articles in several conferences and journals. Dr. Melany M. Ciampi coordinated and participated in dozens of organizing committees of events in Brazil and abroad. She has taught courses and lectures in five continents over 30 different Countries.

About the Edwin C. Jones Award

The Edwin C. Jones Meritorious Service Award is presented to recognize a member of the IEEE Education Society who has made pioneering contributions to the administrative efforts of the IEEE Education Society over a period of years. The award consists of a plaque, a certificate, and registration to the Frontiers in Education Conference.

About Edwin C. Jones

Professor Jones served as a Society officer from 1970 through 1976; this service included two years as president. He served as Editor-in-Chief of the IEEE Transactions on Education from 1982-84. Since he first became involved in the Society in the late 1960s, he has held virtually every office in the Education Society. He is still actively involved with the Education Society. Professor Jones also serves the IEEE as a member of the IEEE Committee on Engineering Accreditation Activities. Dr. Jones is University Professor and Associate Chair, emeritus, Department of Electrical and Computer Engineering, Iowa State University. Prior to joining Iowa State in 1966, he was an Assistant Professor at the University of Illinois from 1962-66. He received his PhD in 1962 from the University of Illinois; the DIC in 1956 from Imperial College of Science and Technology, University of London; and the BSEE in 1955 from West Virginia University. Dr. Jones’ honors and awards include: Fellow, Institute of Electrical and Electronics Engineers; Fellow, American Society for Engineering Education; Fellow, American Association for Advancement of Science; Fellow, Accreditation Board for Engineering and Technology; IEEE Centennial Medal, 1984; ASEE Centennial Medal, 1993.
IEEE Education Society
Chapter Achievement Award

In recognition of the Chapter as an inspiring model of technical activities, membership recruitment and services, and for outstanding leadership

Inmaculada Plaza (M’02–SM’06) received an MS degree in Physics, an Advanced Studies Diploma (DEA) in Design and Manufacture Engineering, and a PhD degree in Electronic Engineering from the University of Zaragoza, Zaragoza, Spain.

She is currently a teacher in the Electronics Department at the Polytechnic University School of Teruel, University of Zaragoza. Previous work included research in solid state physics and nuclear physics. She has also been a Consultant and Leader in a security firm.

Together with Dr. Francisco Arcega, she is the Coordinator of the EduQTech (Education–Quality–Technology) R&D&I group. Her research interests include: quality in R&D&I activities, quality in education, free software and hardware and quality of life for disabled and elderly people.

She has published numerous articles in journals and conferences. She is also co-author of several technical books. I. Plaza belongs to the organizing committee of several national and international conferences and she is also a referee of different technical and educational international journals.

Dr. Plaza is a member of the AEC (Spanish Association for Quality) and a founding member of the IEEE Education Society (Member 2002 – Senior Member 2006). Currently, she is Chair of the IEEE-Spain Education Society Chapter. This Chapter has been awarded with the “2011 Best Large Chapter Award – IEEE Region 8”. She has also received several honourable mentions (2007, 2008 and 2009) for her work in educational innovation.

Martin Llamas-Nistal (M’92–SM’06) received his Eng. and Ph.D. degrees in telecommunication from the Polytechnic University of Madrid, Madrid, Spain, in 1986 and 1994, respectively. From 1994 to 1997 he was Vice Dean of the Higher Technical School of Telecommunication Engineers, University of Vigo, Vigo, Spain. From 1999 to 2003, he was the head of the ICT Area of the University of Vigo. He is author or coauthor of more than 200 papers in international refereed journals and conference proceedings. He has directed several national and international research projects in telematics and technology enhanced learning fields.

Dr. Llamas-Nistal is a member of the American Society for Engineering Education (ASEE), Association for Computing Machinery (ACM) and IFIP WG 3.6 (distance education). He is very involved in activities within the IEEE Education Society. He is Vice-President for Publications, elected member of the Administrative Committee (AdCom), and member of the Strategic Planning Committee. Since its founding in 2004, he has been a member of the IEEE Education Society Spanish Chapter Board and Coordinator of the Technical,
Manuel Caeiro-Rodríguez (M’07-SM’11) received the Telecommunication Engineering degree and the Ph.D. degree in Information and Communication Technologies from the University of Vigo, Spain. He received the 2007 Spanish Chapter IEEE Education Society award to the best Doctoral Thesis. He has received other prices such as the “New Faculty Fellowship” in the 36th Annual Frontiers in Education Conference, the “Education Track Best Paper” and “Conference Best Paper Finalist” in the World Wide conference 2002, and the “Highlight Paper” in the World Wide Web conference 2001.

Manuel is an Associate Professor at the Department of Telematic Engineering, University of Vigo. He teaches computer programming, software engineering and computer architectures in the school of Telecommunications Engineering. His research interests include e-learning technologies and standards, CSCL, process-based systems, and Educational Modelling Languages. He has performed research stays in the University of Coimbra (Portugal), IRISA (Rennes, France), MTA-ZSTAKI (Budapest, Hungary) and University of Kumamoto (Japan). Currently he is focused on the integration of external tools in e-learning systems.

Francisco Jurado (M’00–SM’06) was born in Linares, Spain. He received the M.Sc. and Dr. Ing. degrees from the Universidad Nacional de Educación a Distancia, Madrid, Spain, in 1995 and 1999, respectively.

Since 1985, he has been a Professor with the Department of Electrical Engineering, University of Jaén, Linares, Spain. His research activities have been devoted to several topics, e.g., power systems, modeling, and renewable energy.

Francisco J. Arcega (M’76 and SM’05) was born in Caspe (Zaragoza), Spain. He received the M.Sc. in Physics in 1976 and Doctorate in 1981 in University of Zaragoza, Spain. In 1976 he joined the Electronics Department of the, University of Zaragoza and since 1982 he is in the Electrical Engineering Department where he is currently Professor (CEU). He has been Director of the Department of Electrical Engineering and later Dean of the Faculty of Engineering (EUITIZ) in the University of Zaragoza (2004-2009).

His main research interests are in the field of electrical measurements and their applications in the industry field, as well he is interested in the research and innovation in the educational field. He is co-director of the research group EduQTech devoted to research and use the quality in the education and in the technology. He is member of the Directive of the Spanish Chapter of the Education Society of the IEEE.
He is reviewer of several journals and conferences. He has published about one hundred papers in International Conferences and Technical Journals about Innovation in Education and in Electrical Engineering, mainly in aspects related with Quality and Measurements. He has published a book on Sensors and another one in Metrology and he has co-registered two commercial patents in measurement and control areas. He is Director of the Laboratory of Electrical Metrology (LME) and is very active in auditing testing laboratories in Spain and auditing engineering university Schools for Diplomas (Grade and Mater) and Doctorate level for the Spanish National Agency for Accreditation (ANECA).

Edmundo Tovar, computer engineering educator, has a Ph.D. (1994) and a bachelor’s degree (1986) in computer engineering from the Universidad Politécnica de Madrid (UPM). He is Certified Software Development Professional (CSDP) from the IEEE Computer Society and has worked for five years in private companies as a knowledge engineer and in public administration as a software engineer. He has been an advisor in quality assurance for several institutions and an expert evaluator in accreditation processes with the Spanish Agency for Quality Assessment and Accreditation, ANECA. He has been involved as a researcher in software quality management tasks in international projects since 1988, and in educational projects, managing several in the context of the European Higher Education Area. He is Associate Dean for Quality and Strategic Planning in the Computing School of the Universidad Politécnica de Madrid. In this position, he is in charge of training for academic staff and introduction of innovative solutions, including new pedagogies; new approaches that improve student learning of technical skills and cultural skills, and improved methods of blended learning.

He is leader of an innovation group in education in the Universidad Politécnica de Madrid that addresses topics such as interactive techniques for learning, learning via discovery or project work, tools for formative and summative assessment, or creation of learning objects.

Author of more than 40 papers in engineering education, and member of several program committees, he has served as a European co-chair for several Frontiers Education Conferences (FIE) and is a member of the IEEE RITA editorial committee. He is an IEEE senior member, past chairman of the Spanish chapter and, as at-large member of the administrative committee of the IEEE Education Society; he is currently chair of the Distinguished Lectures Program for the Education Society.

Gabriel Díaz Orueta received an M. Sc. and Ph.D. in Physics from UAM (Universidad Autónoma de Madrid) in 1983 and 1988 respectively. He has worked for several IT companies, like Digital Equipment Corporation and Cisco Systems, for 15 years. He holds several industrial certificates from Microsoft, Cisco Systems or EXIN/ITIL.

Since 2006 he has worked as Associate Professor in the Electrical and Computer Engineering Department in UNED (Spanish University for Distance Education). His research interests include security measurement, security metrics, and security for Process Control Systems and the different approaches for getting the best of ICT technologies applied to different kinds of security learning for Higher Education at universities. He is also CEO at ADSO Consultoría y Formación, a company dedicated to consulting and learning services related with Information Security matters.
He is a senior member of the IEEE and, since 2006, vice-chair at the Spanish chapter of IEEE Education Society. He has been awarded the 2007 Chapter Achievement Award and the 2011 Best Large Chapter Award from IEEE Region 8.

Jose Angel Sanchez Ortiz is Professor of Electronic Systems about Networking Computers and Factory Communications Systems in the Professional High School of Talavera de la Reina (Castilla-La Mancha, Spain). He has the Telecommunications Engineer degree from the Catalonia Polytechnic University, and has finished the Full Program to Previous Doctor degree in Electric, Electronic and Control Systems from the Spanish University for Distance Education (UNED). Also, he is University Expert in Informatics Applications to Management and Automation of Business and Factory by the Spanish University for Distance Education Foundation. Also, he has published didactic books and informatics tools to Professional High Schools about Quality Systems and Electronic CAD with multimedia materials presented in conferences and awards. Actually, he is member of the Quality Committee in Education (ISO9001) to Quality High Schools Network of Castilla-La Mancha Education Department in Talavera de la Reina. From 1996 to 2010 he was Electric-Electronic Department Head, where he is now Information and Communication Technologies Coordinator and. He is Senior Member of IEEE and founder and Secretary of its Spanish Chapter.

Francisco Mur is an Electrical and Computer Engineering educator in the Spanish University for Distance Education (UNED) and has an industrial engineering degree from the ETSII (Industrial Engineering School) of the Madrid Polytechnic University (UPM) and a doctoral engineering degree from the Spanish University for Distance Education (UNED). He has received the Extraordinary Doctoral Award in the UNED. Has received the 1998 and 2000 years UNED's Social Council for the Best Didactic Materials in Experimental Sciences. He works as researcher in different projects, ranging from digital signal processing to control in power quality systems. He is now with the UNED as Associate Professor in the Electronics Technology subject inside the Electrical and Computer Engineering Department. He has published different technical books and articles for journals and conferences (national and international). He is member of IEEE.
IEEE Education Society
Distinguished Chapter Leadership Award

For leadership and innovative thinking as Chairman of the IEEE Milwaukee Chapter and as a strongly engaged participant in the IEEE Education Society playing important roles with professionalism, dedication and cordiality

Dr. Russ Meier is an Associate Professor of Electrical Engineering and Computer Science at the Milwaukee School of Engineering. He received his B.S., M.S., and Ph.D. degrees in Computer Engineering from Iowa State University. His teaching and research interests include embedded systems, evolvable hardware, the use of complex adaptive systems in digital architectures, and computer architecture. His teaching skills have been recognized with an Iowa State University Teaching Excellence Award and the Warren B. Boast Award for Undergraduate Teaching Excellence.

Dr. Meier maintains professional memberships in IEEE, the IEEE Computer Society, the IEEE Computational Intelligence Society, the IEEE Education Society, the American Society for Engineering Education (ASEE), and the ASEE Educational Research and Methods division (ERM).

Dr. Meier serves the engineering education community in a number of ways. As IEEE Education Society Meetings Chair, he works with colleagues from around the world to establish, plan, and maintain engineering education conferences and workshops. He serves on the Steering Committees of the ASEE/IEEE Frontiers in Education Conference (FIE) and the IEEE Engineering Education Conference (EDUCON). He is a voting member on the IEEE Education Society Administrative Committee and the Strategic Planning sub-committee. He is the IEEE Education Society Milwaukee Chapter Chair. He was the FIE2007 General Chair and served eight years as the FIE Faculty Fellows Chair. His service has been recognized with the 2009 ASEE/IEEE FIE Conference Ronald J. Schmitz Meritorious Service Award, the 2009 Engineers and Scientists of Milwaukee Young Engineer of the Year Award, and the 2010 IEEE EDUCON Meritorious Service Award.
IEEE Education Society
Student Leadership Award

For exceptional contributions to foster life-long learning bridging the gap between theory and practice in developing a holistic education, faculty, and the community at large in the province of Manitoba, Canada

Mr. Dario Schor completed his B.Sc. degree in Computer Engineering in 2008, and is currently pursuing a Master's degree in Computer Engineering both at the University of Manitoba (UofM). His research interest includes evolutionary algorithms for cognitive machines, and particularly the design of hardware and algorithms with software implementations for space applications, resulting in several conference and journal publications.

Dario has been involved in many activities throughout his high school, undergraduate, and postgraduate studies. He has taken a leadership role that aims to enhance the educational experience of students at the UofM through formal classroom learning, extra-curricular activities and student groups. He is also an advocate for Electrical and Computer Engineering through regular participation in high school outreach events, frequent presentations for many primary and high school visits, and active involvement in the Teacher In-Service Program (TISP) within the IEEE Winnipeg Section. Dario is the Project Leader for the University of Manitoba Space Applications and Technology Society leading a group of over 90 students in the design, implementation, and testing of a triple pico-satellite (T-Sat) for the Canadian Satellite Design Challenge, and supported by over 50 advisors from academia, aerospace and other industries, military, government, and other organizations. He is also serving as the President of the University of Manitoba Amateur Radio Society, IEEE Winnipeg Section Webmaster, and Vice-Chair for the joint IEEE Chapter on Education, Management, and Communications for the Winnipeg Section.

Mr. Schor is a student member of the Institute of Electrical and Electronic Engineers, the Association of Computing Machinery, and the Canadian Engineering Education Association.
IEEE Education Society Mac Van Valkenburg
Early Career Teaching Award

For the enthusiasm he brings to the classroom, the individual attention he gives to all of his students, and for making complex ideas and systems look simple and comprehensible

Jonathan J. Makela is an Associate Professor in the Department of Electrical and Computer Engineering at the University of Illinois at Urbana-Champaign. He earned his B.S. Magna Cum Laude with honors and Ph.D. from Cornell University in 1999 and 2003, respectively. His research expertise is in remote sensing of the Earth’s thermosphere and ionosphere using a variety of optical and radio techniques. As a teacher, he instructs undergraduate and graduate students in courses focusing on electromagnetics, sensors, Global Navigation Satellite Systems, optical remote sensing, and engineering design.

Prof. Makela has received several national and international awards recognizing the excellence of his research on thermospheric and ionospheric dynamics. A National Science Foundation Graduate Research Fellowship supported his graduate work. He was a National Research Council Post-Doctoral Research Associate for two years at the Naval Research Laboratory. In 2007, he received a prestigious CAREER award from the National Science Foundation. He is the recipient of the 2008 Henry G. Booker Fellowship from the United States National Committee of the International Union of Radio Scientists as well as the 2008 Zeldovich Medal from the Committee on Space Research and Russian Academy of Sciences.

As an educator, Prof. Makela strives for excellence in the classroom. He is the recipient of the 2009 Ronald W. Pratt Outstanding Teaching Award from the Department of Electrical and Computer Engineering at the University of Illinois at Urbana-Champaign. He has been included on the University’s “List of Teachers Ranked as Excellent by Their Students” eight times since 2005. He oversees the research of graduate students and has routinely involved undergraduate students in the work conducted by his group through independent research projects, honor theses, and involvement in his department’s Promoting Undergraduate Research Experiences (PURE) program.
ASEE ERM Division
Distinguished Service Award

For contributions to the education of future engineers and their educators, through outstanding service to the ASEE Educational Research and Methods Division

Dr. Jennifer Karlin received her undergraduate degree from Washington University in St. Louis and her Ph.D. in industrial and operations engineering from the University of Michigan, specializing in engineering management. As far as her committee could determine, she was the first person in the IOE department to successfully defend a solely qualitative methodology dissertation. While a graduate student at the University of Michigan, she taught a senior elective and worked for the Center for Research on Learning and Teaching.

Jennifer is now an associate professor of industrial engineering at the South Dakota School of Mines and Technology. She teaches courses in engineering management, quality, strategy, and operational excellence in both the industrial engineering and engineering management undergraduate and technology management graduate programs. She is also the Coordinator of Faculty Development for the university.

These days, the majority of Jennifer’s research is in learning organizations and holistic learner development. In 2006, Jennifer received a National Science Foundation CAREER award to continue her study of organizational and student learning, determining the relative organizational health of colleges and departments of engineering and correlating this to changes in student intellectual development. Her other work includes the impact of learning on boundary spanning linkages, holistic learner development, the impact of cognitive processing on organizational and individual learning, and the intersection between lean thinking and ergonomics. Her work has been funded by the National Science Foundation, the United States Air Force (through a congressional earmark), and the Material Handling Industry of America (MHIA). The view from Jennifer’s office window is of the Black Hills and while she misses the Great Lakes of her childhood, she considers mountains to be an acceptable alternative.