

Award Selection Committee Chairs

Frontiers in Education Conference

Benjamin J. Dasher Best Paper Award	Diane Rover
Helen Plants Award	Elizabeth Eschenbach
Ronald J. Schmitz Award	Robert Hofinger

ASEE Electrical and Computer Engineering Division

Hewlett-Packard Frederick Emmons Terman Award	Jeffrey Andrews
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IEEE Education Society

IEEE William E. Sayle Award for Achievement in Education	Susan Conry
IEEE Transactions on Education Theodore Bachman Award	Susan Lord
Chapter Achievement Award	Kai Pan Mark
Distinguished Chapter Leadership Award	Trond Clausen and Emmanuel Gonzalez
Distinguished Member Award	Victor Nelson
Edwin C. Jones, Jr. Meritorious Service Award.....	Susan Lord
Hewlett-Packard/Harriett B. Rigas Award	Joanne Bechta Dugan
Mac Van Valkenburg Early Career Teaching Award.....	S. Hossein Mousavinezhad
Student Leadership Award	Trond Clausen

2016 FIE Conference Awards Presentations

Thursday, October 13..... Terman/Rigas Awards Luncheon

ASEE ECE Division Hewlett-Packard Frederick Emmons Terman Award
IEEE Education Society Hewlett-Packard/Harriett B. Rigas Award

Friday, October 14..... Awards Banquet

Frontiers in Education (FIE) Conference Awards

FIE Benjamin J. Dasher Best Paper Award
FIE Helen Plants Award
FIE Ronald J. Schmitz Award

IEEE Education Society

William E. Sayle Award for Achievement in Education
IEEE Transactions on Education Theodore E. Batchman Best Paper Award
Chapter Achievement Award
Distinguished Chapter Leadership Award
Distinguished Member Award
Edwin C. Jones, Jr. Meritorious Service Award
Mac Van Valkenburg Early Career Teaching Award
Student Leadership Award

Newly Elected IEEE Fellows



Sanjit A. Seshia
University of California,
Berkeley

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 Verdu
'01 Zoya Popovic
'02 Theodore S.
Rappaport
'03 Wayne Wolf

ASEE ECE Division Hewlett-Packard Frederick Emmons Terman Award

For writing and other contributions to electrical engineering and computer science education.

Sanjit A. Seshia is an Associate Professor in the Department of Electrical Engineering and Computer Sciences at the University of California, Berkeley. He received an M.S. and Ph.D. in Computer Science from Carnegie Mellon University, and a B.Tech. in Computer Science and Engineering from the Indian Institute of Technology, Bombay.

His research interests are in dependable computing, formal methods, and computational logic, with a current focus on problems in cyber-physical systems and computer security. He is co-author of a widely-used textbook on embedded systems and has led the development of technologies for cyber-physical systems education. His awards and honors include a Presidential Early Career Award for Scientists and Engineers (PECASE) and an Alfred P. Sloan Research Fellowship.

About the Terman Award

'04 Keshab K. Parhi
'05 Ali H. Sayed
'06 Vijay K. Madiseti
'07 Russel Jacob (Jake)
Baker
'08 Keith M. Chugg
'09 David Tse
'10 Bhaskar
Krishnamachari
'11 Tony Givargis
'12 Ali Niknejad
'13 Mung Chiang
'14 Changzhi Li
'15 Jeffrey G. Andrews

The Frederick Emmons Terman Award is presented annually to an outstanding young electrical or computer engineering educator by the Electrical and Computer Engineering Division of the American Society for Engineering Education. The Terman Award, established in 1969 by Hewlett-Packard Enterprise, 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 no more 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.



Kathleen Wage
George Mason University

IEEE Education Society Hewlett-Packard Harriett B. Rigas Award

For championing active learning, developing an internationally recognized assessment instrument, and cultivating a sustainable and supportive environment for female engineering faculty

Kathleen E. Wage received the B.S. degree in electrical engineering from the University of Tennessee, Knoxville, in 1990, and the S.M., E.E., and Ph.D. degrees in electrical engineering from the Massachusetts Institute of Technology/Woods Hole Oceanographic Institution Joint Program in 1994, 1996, and 2000, respectively.

Past Recipients

- '95 Denice D. Denton
- '96 Karan L. Watson
- '97 Patricia D. Daniels
- '98 Delores M. Etter
- '99 Sherra E. Kerns
- '00 Leah Jamieson
- '01 Valerie Taylor
- '02 Nan Marie Jokors
- '03 Joanne Bechta Dugan
- '04 Jennifer L. Welch
- '06 Eve A. Riskin
- '07 Bonnie Heck Ferri
- '08 Cheryl B. Schrader
- '09 Cynthia Furse
- '10 Mari Ostendorf
- '11 Karen Panetta
- '12 Tanja Karp
- '13 Nancy Amato
- '14 Noel Schulz
- '15 Sarah Rajala

In 1999 Dr. Wage joined the faculty of the Electrical and Computer Engineering Department at George Mason University in Fairfax, VA, where she is currently a tenured associate professor. Her research interests include array processing, random matrix theory, underwater acoustics, and signal processing education. As a part of her research, she participated in a number of deep water propagation experiments.

In 2009-2012, she spent 55 days at sea for the deployment and recovery cruises for the Philippine Sea experiments. During the PhilSea experiments, Dr. Wage and colleague Lora Van Uffelen (a.k.a. The Able Sea Chicks) developed a blog and videos to engage young women in ocean acoustics and engineering. She regularly leads activities for Girl Scouts at Acoustical Society of America meetings.

In addition to ocean signal processing, Dr. Wage is interested in new pedagogical methods and educational assessment. She incorporates active learning in all her courses and mentors other faculty interested in using these techniques. In collaboration with John Buck she developed the Signals and Systems Concept Inventory (SSCI), a standardized exam designed to measure conceptual understanding of linear systems. Instructors at 28 schools have administered the SSCI to over 2600 students. The exams have been translated into Spanish and Chinese.

Dr. Wage has received a number of awards for teaching, including the 2008 Mac Van Valkenburg Early Career Teaching Award from the IEEE Education Society, the 2016 Teacher of Distinction Award from George Mason University, the 2004 Outstanding Teaching Award from Mason's Volgenau School of Engineering, and the 1994 Harold L. Hazen Teaching Award from MIT's EECS Department. In 2010 she was an invited participant in the National Academy of Engineering Frontiers of Engineering Education Symposium. In addition to her teaching awards, Dr. Wage received several awards for research, including the Office of Naval Research (ONR) Young Investigator Award (2005) and the ONR Ocean Acoustics Entry-Level Faculty Award (2002). Dr. Wage is an Associate Editor for the IEEE Journal of Oceanic Engineering and chair of the IEEE Underwater Acoustic Signal Processing Workshop. She is a member of the IEEE, the Acoustical Society of America, the American Society for Engineering Education, Tau Beta Pi, Eta Kappa Nu, and Sigma Xi.

About the Rigas Award

The Harriett B. Rigas Award is presented annually to recognize outstanding faculty women who have made significant contributions to electrical and 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 or 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.



Natasha Nesiba
New Mexico State
University



Enrico Pontelli
New Mexico State
University



Timothy Staley
Onate High School

Past Recipients

- '73 Walter D. Story
- '74 Richard Hooper
- '75 John J. Alan III and
J.J. Lagowski
- '76 John Hipwell and
David Blaume

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award

DISSECT: Exploring the Relationship Between Computational Thinking and English Literature in K-12 Curricula by Natasha Nesiba, Enrico Pontelli, and Timothy Staley

Natasha Nesiba is a Software Engineer at Google; she earned her Bachelor’s and Master’s degrees in Computer Science from New Mexico State University in 2013 and 2015, respectively.

Upon graduating from Las Cruces High School in 2010, she was one of seven to receive the competitive \$10,000 Google Anita Borg Memorial Scholarship for First Years. Having her tuition cost covered by NMSU’s President’s Associates Excellence Scholarship and taking to heart the issue of underrepresentation of women, especially Hispanic women, Tasha donated the Google scholarship to create the Mark Nesiba Memorial Endowed Scholarship in honor of her late father. The scholarship continues to support female Hispanic students majoring in CS.

During her undergraduate studies, Natasha worked as an Undergraduate Research Assistant for Young Women in Computing, a K-12 outreach program that focuses on generating interest in CS among young female students in southern New Mexico. She was instrumental in pioneering engaging and unique outreach efforts that reached over 6,500 female students, including in-school presentations; after-school programming clubs; summer camps; city- and state-wide competitions; forums and conferences; and teacher-program collaborations.

In graduate school, Natasha was a fellow for the GK-12 DIScovering SciEnce through Computational Thinking program, where she investigated the relationship between computational thinking and English Literature. The study showed that computational thinking can be seamlessly taught within the context of an English Literature course while remaining true to the course requirements and student performance expectations. The positive assessment results suggested that computational thinking should be explicitly taught as a problem-solving mechanism within the context of all courses, especially those that are fundamental for success.

Dr. Enrico Pontelli received a Laurea in Computer Science from the University of Udine (Italy), a Masters degree in Computer Science from the University of Houston, and his Ph.D. in Computer Science from New Mexico State University. He joined the faculty at NMSU in 1997, where he raised to the rank of Regents Professor. He is currently serving as Interim Dean of the College of Arts & Sciences.

Dr. Pontelli’s research interests spans several areas of Computer Science. He has done extensive research work in the field of Artificial Intelligence, with particular focus on knowledge representation and reasoning, multi-agent systems, logic programming and constraint programming. He has conducted seminal work on application of parallel and distributed computing technologies to enhance performance of logical inference systems, constraint solving systems, and automated planning algorithms. He has also conducted extensive research work in the field of bioinformatics, with particular emphasis on protein structure prediction and phyloinformatics.

Past Recipients

'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
Thoennesen, 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

Dr. Pontelli has led a number of eﬀorts focused on promoting engagement and education in Computer Science, with a particular attention at broadening participation in computing for students from traditionally underrepresented groups. He is the director of the Young Women in Computing program at NMSU, which served over 13,000 students in 10 years. He also founded and led the DISSECT program, aimed at engaging teams of teachers and graduate students to infuse computational thinking in traditional K-12 courses.

Dr. Pontelli has published over 250 peer-reviewed publications and served as lead investigators for over \$13M in federal grants. He is the recipient of a NSF Career award.

Tim Staley was born in Montgomery, Alabama, in 1975. He completed a Marketing BS from the University of Alabama in 1997 and a Poetry MFA from New Mexico State University in 2004. Since 2001 he has taught Language Arts at secondary and postsecondary levels. His first full-length volume of poetry *Lost On My Own Street* was published in 2016 by Psaki's Porch Publishing. His newest poetry chapbook, *The Most Honest Syllable is Shhhh*, is forthcoming from Night Ballet Press. Journal publications include *Border Senses*, *Cacti Fur*, *Canary*, *Chiron Review*, *Circumference*, *Coe Review*, *Malpais Review*, *Magnapoets*, *RHINO: The Poetry Forum*, and *Sin Fronteras*.

Since 2014 he has been involved with New Mexico State University's GK-12 DIScover SciEnce through Computational Thinking (DISSECT) program. Working closely with a fellow, he has had success integrating computational thinking strategies into his Language Arts Instruction. In 2016 he was the recipient of the Dona Ana Arts Council's *The Arts in Education Award*. He lives with his wife, daughter and two mutts in Las Cruces, New Mexico.

'03 Glenn W. Ellis, Gail E. Scordilis, and Carla M. Cook
'04 Matthew W. Ohland, Guili 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
'11 Jeffrey L. Newcomer
'12 Kristi J. Shryock, Arun R. Srinivasa and Jeffrey E. Froyd
'13 Robin Adams, Alice Pawley and Brent Jesiek
'14 Hansi Keijonen, Jaakko Kurhila, Arto Vihavainen
'15 Lecia Barker and Jane Gruning

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 2015



James Huff
Harding University



Brent Jesiek
Purdue University



Carla Zoltowski
Purdue University



Joachim Walther
University of Georgia

Qualitative Research on Psychological Experience: A Starting Point for Using Interpretative Phenomenological Analysis by

James Huff, Brent Jesie, Carla Zoltowski, Joachim Walther, and William Oakes

James Huff is an assistant professor of engineering and the Director of Engineering Assessment at Harding University, where he primarily teaches multidisciplinary engineering design in service-learning contexts. He conducts research using interpretative phenomenological analysis (IPA) to investigate the experienced phenomena of career identity and emotions in engineering education. Dr. Huff received his Ph.D. in engineering education and his M.S. in electrical and computer engineering, both from Purdue University. He received his bachelor's in computer engineering at Harding University.

Dr. Brent Jesiek is Associate Professor in the Schools of Engineering Education and Electrical and Computer Engineering at Purdue University. He leads the Global Engineering Education Collaboratory (GEEC) research group, and is the recipient of an NSF CAREER award to study boundary-spanning roles and competencies among early career engineers. He holds a B.S. in Electrical Engineering from Michigan Tech and M.S. and Ph.D. degrees in Science and Technology Studies (STS) from Virginia Tech. Dr. Jesiek draws on expertise from engineering, computing, and the social sciences to advance understanding of geographic, disciplinary, and historical variations in engineering education and practice.

Carla B. Zoltowski is an assistant professor of engineering practice in the School of Electrical and Computer Engineering at Purdue University. She holds a B.S.E.E., M.S.E.E., and Ph.D. in Engineering Education, all from Purdue. Prior to this she was Co-Director of the EPICS Program at Purdue where she was responsible for developing curriculum and assessment tools and overseeing the research efforts within EPICS. Her academic and research interests include the professional formation of engineers, diversity and inclusion in engineering, human-centered design, engineering ethics, leadership, service-learning, and accessibility and assistive-technology.

Dr. Joachim Walther is an associate professor of engineering education research at the University of Georgia. Dr. Walther leads a dynamic interdisciplinary research group that brings together professors, graduate, and undergraduate students from engineering, art, educational psychology, and social work. His interdisciplinary research program focuses on broader aspects of engineering professional formation, such as the role of empathy in engineering learning. Methodologically, his work draws on a wide range of qualitative approaches and he has developed and championed the Research Quality Framework (Q3 framework) as a way to foster research quality across the many interpretive research methods adopted in the engineering education community. Dr. Walther's contributions to the field have been recognized through numerous university-level, national, and international



William Oakes
Purdue University

awards. Most notably, Dr. Walther is a recipient of the Presidential Early Career Award for Scientists and Engineers (PECASE), the highest honor bestowed by the United States Government on science and engineering professionals in the early stages of their independent research careers.

William (Bill) Oakes is an instructor with both the EPICS (Engineering Projects in Community Service) and IDEAS (Introducing Diversity through Engagement and Service) learning communities. He received his BS and MS in mechanical engineering from Michigan State University. His PhD in Mechanical Engineering is from Purdue University. Oakes is recognized for going above and beyond his required role in order to benefit students in their first year at Purdue.

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 E. 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 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 Picket-May and
Julie L. Chang
- '03 William C. Oakes
- '04 Susan M. Lord,
Elizabeth 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
- '11 Mark Somerville, Dave Goldberg, Sherra E. Kerns, and Russell Korte
- '12 Şenay Purzer and Jonathan C. Hilpert
- '13 Lynn Andrea Stein and Caitrin Lynch
- '14 Stephanie Cutler, James J. Pembridge, Matthew Verleger, and Lauren D.
Thomas
- '15 Rebecca Bates, Lisa Benson, Alan Cheville, Cynthia Finelli, Jennifer Karlin,
and Susan Lord

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).



Melany Ciampi
COPEC

Past Recipients

- '84 Carol Schmitz
- '85 Lawrence P. Grayson
- '86 John C. Lindenlaub
- '87 George Burnett
- '88 James R. Rowland
- '89 Lyle D. Feisel
- '90 Edwin C. Jones, Jr.
- '92 Karl A. Smith
- '92 Victor K. Schutz
- '93 Bruce A. Einstein
- '94 David V. Kerns, Jr.
- '95 David R. Voltmer
- '96 William E. Sayle II
- '97 Richard S. Culver
- '98 Dan Budny
- '99 Robert J. Herrick
- '00 Larry J. Shuman
- '01 David L. Soldan
- '02 Goranka Bjedov
- '03 Larry G. Richards
- '04 James A. Roberts
- '05 Robert J. Hofinger
- '06 Jane Chu Prey
- '07 Joseph L. A. Hughes
- '08 Ted E. Batchman
- '09 Russ Meier
- '10 Dan Moore
- '11 Susan M. Lord
- '12 Arnold Pears
- '13 Jennifer Karlin
- '14 Cynthia Finelli
- '15 Robert Hofinger

Frontiers in Education Conference Ronald J. Schmitz Award

For outstanding service to the Frontiers in Education Conference

Dr. Melany M. Ciampi is a Professor of Electrical and Computer Engineering. She has served as the International Chair of Frontiers in Education Annual Conference (FIE) since 2003 and is Secretary of Education Society of the IEEE (IEEE-EdSoc). She has participated as a member of committees in more one hundred international conferences and journals. She has also taught courses and lectures in five continents in over 30 different countries. Currently she is the President of World Council on System Engineering and Information Technology (WCSEIT), President of Safety Health and Environment Research Organization (SHERO), President of World Council on Communication and Arts (WCCA), Vice-President of Sciences and Education Research Council (COPEC), Vice- President of Fishing Museum Friends Society (AAMP) and. She is also Chair of Intersociety Cooperation Committee of Education Society of the IEEE (IEEE-EdSoc) since 2011, Co-Chair of Working Group "Ingenieurpädagogik im Internationalen Kontext" in IGIP (Internationale Gesellschaft für Ingenieurpädagogik) since 2002, Member of Strategic Planning Committee of Education Society of the Institute of Electrical and Electronics Engineers, Inc (IEEE-EdSoc) since 2009 and Board Member of "Global Council on Manufacturing and Management" (GCMM) since 2004. She is Member of Board of Governors of International Council for Engineering and Technology Education (INTERTECH) since 2000, Member of Board of Governors of Education Society of the Institute of Electrical and Electronics Engineers, Inc (IEEE-EdSoc) since 2000 and Member of Board of Governors of World Council on System Engineering and Information Technology (WCSEIT) since 2012. She was Vice-President of "Internationale Gesellschaft für Ingenieurpädagogik" (IGIP), President of Brazilian Chapter of Education Society of the Institute of Electrical and Electronics Engineers, Inc (IEEE-EdSoc), Member of Executive Committee of IGIP, State Councilor of Brazilian Association for the Advancement of Science (SBPC) 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 International Council on Engineering and Technology Education, Award from the International Council on Engineering and Computer Education, Award of Recognition of International Society for Engineering Education and Medal of Brazilian Association of Civil Engineers. She is Senior Member of IEEE. She received the IEEE Edwin C. Jones Jr. Meritorious Service Award of 2011. She has over one hundred and fifty published articles in several conferences and journals.

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.

Ron contracted cancer in 1983 and died on July 19, 1984.



Susan Lord
University of San Diego

Past Recipients

- '79 Lawrence P. Grayson
- '80 Demetrius T. Paris
- '81 Lindon E. Saline
- '82 Anthony B. Giordana
- '83 Joseph Bordogna
- '84 John C. Lindenlaub
- '85 John D. Ryder
- '86 James R. Rowland
- '87 Bruce Eisenstein
- '88 Mac Van Valkenburg
- '89 Edward W. Ernst
- '90 Ernst Weber
- '91 J. David Irwin
- '92 Jerrier A. Haddad
- '93 Chalmers F. Sechrist
- '94 Eric A. Walker
- '95 Stephen W. Director
- '96 William H. Hayt, Jr.
- '97 Jerry R. Yeargan
- '98 Ted E. Batchman
- '99 Lyle D. Feisel
- '00 Irene C. Peden
- '01 Donald E. Kirk and
Eli Fromm
- '02 Burks Oakley II
- '03 Frank Barnes and
Delores Etter
- '04 William E. Sayle II
- '05 H. Vincent Poor
- '06 George D. Peterson
- '07 Sarah A. Rajala and
Marwan A. Simaan
- '08 James A. Roberts
- '09 Jose B. Cruz, Jr.
- '10 Rob Reilly
- '11 Susan E. Conry
- '12 Theodore Rappaport
- '13 Karen Panetta
- '14 Raghunath K.
Shevgaonkar
- '15 Marco Winzker

IEEE Education Society William E. Sayle II Award for Achievement in Education

For contributions to educational pedagogy, diversity, and leadership in engineering education

Susan M. Lord is Professor and Chair of Electrical Engineering, University of San Diego (USD). She received a B.S. from Cornell University and the M.S. and Ph.D. from Stanford University. Her research focuses on the study and promotion of diversity in engineering including student pathways, diverse populations including Latinos and military veterans, and cross-cultural studies with non U.S. students. Her research has been sponsored by the National Science Foundation (NSF). Dr. Lord and Dr. Michelle Madsen Camacho are among the first to study Latinos in engineering. In reviewing their 2013 book, *The Borderlands of Education: Latinas in Engineering*, Dr. Riley, Smith College, called it “groundbreaking work...that will challenge your assumptions about women and minorities in engineering”. Dr. Walden, University of Oklahoma said “This book should be high on the must-read list for engineering educators at all levels, from first-year faculty to deans.” Dr. Lord is a Fellow of the IEEE and ASEE and is active in the engineering education community including serving as General Co-Chair of the 2006 Frontiers in Education (FIE) Conference, on the FIE Steering Committee, and as President of the IEEE Education Society for 2009-2010. She is an Associate Editor of the IEEE Transactions on Education. She and coauthors received the 2011 Wickenden Award for the best paper in the Journal of Engineering Education and the 2011 Best Paper Award for the IEEE Transactions on Education. Dr. Lord spent a sabbatical in 2012 at Southeast University in Nanjing, China teaching and doing research. Dr. Lord is currently on the USD team implementing “Developing Changemaking Engineers”, an NSF-sponsored Revolutionizing Engineering Education (RED) project.

About the Sayle Award and William E. Sayle II

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.

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.



Jana Reisslein
Arizona State
University



Amy M. Johnson
Arizona State
University



Martin Reisslein
Arizona State
University

IEEE *Transactions on Education* Theodore E. Batchman Best Paper Award

***Color Coding of Circuit Quantities in Introductory Circuit Analysis Instruction*, Jana Reisslein, Amy M. Johnson, and Martin Reisslein, IEEE Transactions on Education**

Vol. 58, No. 1, February 2015, pp. 7-14

Jana Reisslein received the Ph.D. degree in educational technology from Arizona State University (ASU), Tempe, in 2005 and the M.A. in Psychology from Palacky University, Czech Republic, in 2000. She was an instructional designer with Information Technology, Intel Corporation, from 2005 – 2007 and an instructional technologist with Business Information Technology, ASU, from 2007 – 2008. Since 2012 she has been an educational consultant and evaluator with the Fulton Schools of Engineering at ASU.

Amy Johnson is an Assistant Research Professor in the Science of Learning and Educational Technology (SoLET) Lab the Learning Sciences Institute at Arizona State University ASU), Tempe. She joined ASU as an Assistant Research Scientist in the School of Electrical, Computer, and Energy Engineering after having received her PhD in Cognitive Psychology from the University of Memphis in 2011. Her research interests concern learners' knowledge construction through integration of textual and pictorial information within multimedia and hypermedia environments, the use of multiple representations of information during regulating one's learning, and the use of animated pedagogical agents during learning. She is a member of the American Educational Research Association, Cognitive Science Society, International Artificial Intelligence in Education Society, American Society for Engineering Education, and Research in Engineering Education Network.

Martin Reisslein (A'96-S'97-M'98-SM'03-F'14) is a Professor in the School of Electrical, Computer, and Energy Engineering at Arizona State University (ASU), Tempe. He received the Ph.D. in systems engineering from the University of Pennsylvania in 1998. Martin Reisslein served as Editor-in-Chief for the IEEE Communications Surveys and Tutorials from 2003-2007 and as Associate Editor for the IEEE/ACM Transactions on Networking from 2009-2013. He currently serves as Associate Editor for the IEEE Transactions on Education as well as Computer Networks and Optical Switching and Networking. Martin Reisslein received the U.S. National Science Foundation Career Award in 2002 and the Friedrich Wilhelm Bessel Research Award from the Alexander von Humboldt Foundation in 2015.



Susan Lord
University of San Diego



Richard Layton
Rose-Hulman Institute



Matthew Ohland
Purdue University

IEEE Transactions on Education Theodore E. Batchman Best Paper Award

Multi-Institution Study of Student Demographics and Outcomes in Electrical and Computer Engineering in the USA, Susan Lord, Richard Layton, and Matthew Ohland, IEEE Transactions on Education Vol. 58, No. 3, August 2015, pp. 141-150

Susan M. Lord is Professor and Chair of Electrical Engineering, University of San Diego (USD). She received a B.S. from Cornell University and the M.S. and Ph.D. from Stanford University. Her research focuses on the study and promotion of diversity in engineering including student pathways, diverse populations including Latinos and military veterans, and cross-cultural studies with non U.S. students. Her research has been sponsored by the National Science Foundation (NSF). Dr. Lord and Dr. Michelle Madsen Camacho are among the first to study Latinos in engineering. In reviewing their 2013 book, *The Borderlands of Education: Latinas in Engineering*, Dr. Riley, Smith College, called it “groundbreaking work...that will challenge your assumptions about women and minorities in engineering”. Dr. Lord is a Fellow of the IEEE and ASEE and is active in the engineering education community including serving as General Co-Chair of the 2006 Frontiers in Education (FIE) Conference, on the FIE Steering Committee, and as President of the IEEE Education Society for 2009-2010. She is an Associate Editor of the IEEE Transactions on Education. She and coauthors received the 2011 Wickenden Award for the best paper in the *Journal of Engineering Education* and the 2011 Best Paper Award for the IEEE Transactions on Education. Dr. Lord spent a sabbatical in 2012 at Southeast University in Nanjing, China teaching and doing research. Dr. Lord is currently on the USD team implementing “Developing Changemaking Engineers”, an NSF-sponsored Revolutionizing Engineering Education (RED) project.

Richard Layton is a Professor of Mechanical Engineering at Rose-Hulman Institute of Technology. His areas of scholarship include student teaming, longitudinal studies of engineering undergraduates, and data visualization. With his collaborators, he has been recognized with the best paper in the *Journal of Engineering Education* in 2008 and 2011 and in *IEEE Transactions on Education* in 2011. His teaching practice includes formal cooperative learning and integrating communications, ethics, and teaming across the curriculum. He is a founding developer of the CATME system, a free, web-based system that helps faculty assign students to teams and conduct self- and peer-evaluations. He is a co-author of the *Engineering Communication Manual*, a recent technical communication text designed specifically for engineering students. He can occasionally be found playing guitar at a local open mic.

Matthew Ohland is a Professor of Engineering Education at Purdue University. His research on the longitudinal study of engineering student development, team formation, peer evaluation, and extending the use of active and cooperative learning has been supported by the National Science Foundation and the Sloan Foundation. With his collaborators, he has been recognized with the best paper in the *Journal of Engineering Education* in 2008 and 2011 and in *IEEE Transactions on Education* in 2011 in addition to multiple conference best paper awards. Dr. Ohland is a Fellow of the American Society of Engineering Education and IEEE and has served on the IEEE Education Society Board of Governors (2007-2013), an Associate Editor of *IEEE Transactions on Education*, Chair of the Educational Research and Methods division of ASEE (2009-2011), as a Program Evaluator for ABET, and the 2002–2006 President of Tau Beta Pi.

IEEE Transactions on Education Theodore E. Batchman Best Paper Award



Kayode P. Ayodele
Obafemi Awolowo
University

An iLab for Teaching Advanced Logic Concepts With Hardware Descriptive Languages, Kayode P. Ayodele, Isaac A. Inyang, and Lawrence O. Kehinde, IEEE Transactions on Education Vol. 58, No. 4, November 2015, pp. 262-268

Dr. Kayode P. Ayodele is a Senior Lecturer and Head of the Department of Electronic and Electrical Engineering, Obafemi Awolowo University, Nigeria. His current research interests include acquisition and processing of neurophysiological signals for brain-machine interfaces, and the development of remote laboratories and other pedagogical tools for engineering education. He was a winner of the MIT iLab Junior Research Fellowship and the MIT-Total Empowering the Teachers Fellowship in 2010 and 2013 respectively. He serves as a reviewer for many journals. Dr. Ayodele is a member of the IEEE and the Society for Neuroscience.



Isaac A. Inyang
University of the
Western Cape

Dr. Isaac Anietye Inyang's areas of research include telemedicine, data science and virtual instrumentation. Dr. Inyang is a member of the IEEE, a corporate member of the Nigerian Society of Engineers, and a registered engineer with the Council for the Regulation of Engineering in Nigeria. Dr. Inyang is a co-founder and CEO Ansyl Software Engineering Limited in Nigeria. He is also a member of the Intelligent Systems and Advanced Telecommunication Research Group at the University of the Western Cape, South Africa. He has co-authored journal articles in reputable journals.



Lawrence O. Kehinde
Obafemi Awolowo
University

Professor Lawrence Kunle Kehinde, a former Engineering Dean and University Deputy Vice Chancellor, received his B.Sc 1st class Hons in Electronics (1971) at Obafemi Awolowo University (OAU), Ile-Ife, Nigeria, and a D.Phil, Control Engineering (1975), at the University of Sussex UK. He had his Post-Doctoral Studies in Nuclear Instrumentation at University of California, Berkeley USA (1977-1978) as an IAEA Fellow. He has spent most of his years as a Professor of Instrumentation Engineering at the Obafemi Awolowo University, Ile-Ife, Nigeria. He was the Rector of the first private Polytechnic in Nigeria. A few years back, he concluded a 3-year Visiting Professor term at the Texas Southern University, Houston Texas USA. He has worked in Techno-Managerial position as the Director of ICT at OAU for years. His major field is Instrumentation Designs and has designed equipment, two of which had received British patents in the past. He has published over 90 academic publications. He was the founding Principal Investigator of the University's iLab research and he currently designs remote and virtual experiments for remote experimentation. He is a Chartered Engineer, a Fellow of the Computer Professional Nigeria and a member of IEEE and ASEE.

About the Award

This award recognizes the best paper published each year in the IEEE Transactions on Education, as evaluated on originality, quality, advancement of the art, and effectiveness of presentation in terms of clarity of exposition and coherence.

About Theodore E. Batchman

Ted E. Batchman received his B.S.E.E., M.S.E.E. and Ph.D. degrees from the University of Kansas in 1962, 1963 and 1966, respectively. After working four years in the aerospace industry, he began his academic career at the University of Queensland in Brisbane, Australia (1970-75) where he was involved in optical systems and devices research. He then returned to the USA and assumed a position at the University of Virginia (1975) where he continued his research in electro-optics and semiconductors. In 1988 he moved to the University of Oklahoma to become the Chair of the Electrical Engineering Department, and then in 1995 he moved to the University of Nevada, Reno as Dean of the College of Engineering. He is currently founding director of the Renewable Energy Center at the University of Nevada, Reno. He has been a department chair and dean of engineering for the past 20 years. He was program co-chair of FIE 2000 and general chair of FIE 2001. He has served on the FIE Steering Committee for the past six years and was chair of the FIE Steering Committee in 2007/2008.

He is a fellow of the IEEE and ASEE, recipient of the IEEE Third Millennium Medal, IEEE Education Society 1998 Achievement Award, IEEE Education Society 2000 Meritorious Service Award, is a past member of the IEEE Education Activities Board (EAB) and past chair of the EAB Pre-college Education Committee, a member of the IEEE Education Society Administrative Committee and was editor-in-chief of the IEEE Transactions on Education from January 1997 to January 2001. He is a member of Eta Kappa Nu and Tau Beta Pi.

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
- '04 M. Brian Blake
- '04 Russell L. Pimmel
- '05 Antonio J. Lopez-Martin
- '06 Euan Lindsay and Malcolm C. Good
- '07 Jason A. Day and James D. Foley
- '08 France Bélanger, Tracy L. Lewis, George M. Kasper, Wanda J. Smith and K. Vernard Harrington
- '09 Kenneth Ricks, Jeff Jackson, and William A. Stapleton
- '10 Keith Holbert and George G. Karady
- '11 Julie A. Rursch, Andy Luse, and Doug Jacobson
- '12 Susan Lord, Richard Layton, and Matthew Ohland
- '13 Benjamin Hazen, Yun Wu, and Chetan Sankar
- '14 James McLurkin, Joshua B. Rykowski, Meagan John, Quillan Kaseman, and Andrew J Lynch
- '15 Raghu Raman, Krishnashree Achuthan, Prema Nedungadi, Shyam Diwakard, and Ranjan Bose



Chapter Chair
Sasha Nikolic

IEEE Education Society Chapter Achievement Award

For experiencing an 80% increase in membership across two years through frequent innovative technical meetings, supporting women in engineering education and providing development opportunities to teaching assistants.

Sasha Nikolic (M'14-SM'15) is a Lecturer in Engineering Education at the University of Wollongong, where he is also a Fellow of the Wollongong Academy of Tertiary Teaching and Learning Excellence (WATTLE). He was previously a Laboratory Manager at the same university, and before that worked in operations analysis and telecommunications support in the banking and financial services industry. He is Chair of the New South Wales Chapter of the IEEE Education Society. He won a university Outstanding Contribution to Teaching and Learning Award in 2011. In 2012, he was awarded a Citation for Outstanding Contributions to Student Learning as part of the Australian Awards for University Teaching.

Past Recipients

- '06 Nordic Chapter
- '07 Spanish Chapter
- '08 Gulf Chapter
- '09 Santa Clara Valley Chapter and Portugal Chapter
- '10 Austria Chapter
- '11 Spain Chapter
- '12 Hong Kong Chapter

- Vice Chair, Christian Ritz
- Past Chair, Jun Shen
- Secretary, Peter Vial
- Women in Engineering Education, Azadeh Safari
- General Member, Graeme Gwilliam

IEEE Education Society Distinguished Chapter Leadership Award



Francisco Arcega
University of Zaragoza

Past Recipients

- '06 Michael E. Auer and
Manuel Castro
- '07 Carlos Rueda
Artunduaga and
Oliver K. Ban
- '08 Bakr Hassan and
Edmundo Tovar
- '09 Emmanuel A. Gonzalez
- '10 Martín Llamas-Nistal
- '11 Russ Meier
- '12 German Cabuya
- '15 Rosanna Yuen-Yan
Chan

For innovative and dedicated leadership of professional activities

Francisco J. Arcega (M'80–SM'05) was born in Caspe (Zaragoza), Spain. He received the M.Sc. in Physics in 1976 and PhD in Physics in 1981 at the University of Zaragoza, Spain. In 1976 he joined the Electronics Department at the University of Zaragoza and since 1982 he is in the Electrical Engineering Department where he is currently Professor (CEU). His main research interests are in the field of electrical measurements and their applications in the industry field. As well, he is involved with quality in the education and in the laboratory activities. He is co-director of the research group EduQTech devoted to research and use the quality in education and in technology.

Dr. Arcega has been Director of the Department of Electrical Engineering and later Dean of the Faculty of Engineering (EUITIZ) at the University of Zaragoza (2004-2009).

He is member of the Directive of the Spanish Chapter of the Education Society of the IEEE and he has been Chair of the Chapter (2014-2015).

He has published about one hundred of papers in education and in Electrical Engineering mainly in aspects related with Quality and Measurements. He has published a book on Sensors and one in Metrology. He is reviewer of several technical journals and conferences

Since 1997 he is Director of the Laboratory of Electrical Measurements (LME), accredited by the Spanish National Accreditation Body (ENAC) for calibration Electricity and for testing Electrical parameters of Power Plants. As well he is Technical Expert for the accreditation of Testing Laboratories in Electrical Safety and Electromagnetic Compatibility acting for the Spanish, French and Italian Accreditation Bodies. As well, he has been auditing engineering university Faculties for Diplomas (Degree and Master) and Doctorate level for the Spanish National Agency for Accreditation (ANECA) and he is a Program Evaluator for the Accreditation Board for Engineering and Technology (ABET).



Michael Auer
Carinthia University of
Applied Sciences

Past Recipients

- '05 Marion O. Hagler and
Burks Oakley II
- '06 Ted Batchman and
David A. Conner
- '08 David L. Soldan
- '10 Manuel Castro
- '11 Susan M. Lord
- '12 Matthew Ohland
- '13 Victor Nelson
- '15 Jeffrey Froyd

IEEE Education Society Distinguished Member Award

*For to the growth and sustained development of Engineering
Education throughout the world*

Dr. (mult) Michael E. Auer is Vice-Rector and Professor of Electrical Engineering at Carinthia University of Applied Sciences Villach and Professor for Microelectronics at University of Klagenfurt, Austria. His current research is directed to technology enhanced learning and remote working environments especially in engineering.

He is author or co-author of more than 190 publications and leading member of numerous national and international organizations in the field of Online Technologies.

Michael Auer is founder and chair of the annual international IEEE EDUCON, ICL and REV conferences and chair or member of the Program Committees of several international conferences and workshops.

He works as an evaluator and coordinator of European Union funded research projects and is member in expert groups of the European Commission as well as US NSF.

He is an IEEE member since 1999 and has the grade of a Senior member.

Michael Auer is Founding-President and CEO of the "International Association of Online Engineering" (IAOE) since 2006, a non-governmental organization that promotes the vision of new engineering working environments worldwide. In 2009 he was appointed as member of the Advisory Board of the European Learning Industry Group (ELIG).

Furthermore, he is one of the founders and Secretary General of the "Global Online Laboratory Consortium" (GOLC). GOLC is the result of an initiative started in 2009 at MIT to coordinate the work on educational Online Laboratories worldwide.

From 2010 - 2016 he served as President of the "International Society of Engineering Education" (IGIP).

During the World Engineering Education Forum (WEEF2015) he was elected as President of the International Federation of Engineering Education Societies (IFEES) for 2016 - 2018.



Lance Pérez
University of Nebraska

IEEE Education Society Edwin C. Jones, Jr. Meritorious Service Award

For sustained contributions to the Education Society including serving as Treasurer.

Dr. Lance C. Pérez has been a faculty member in the Department of Electrical and Computer Engineering at the University of Nebraska-Lincoln (UNL) since August 1996 where he holds the rank of Professor. He received his BS degree in electrical engineering from the University of Virginia and his MS and PhD degrees in electrical engineering from the University of Notre Dame. In 1995 he was a postdoctoral fellow with the Institute for Signal and Information Processing at the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland. Dr. Pérez's research interests are in the areas of wireless communications, signal and image processing, and engineering education and leads the Perceptual Systems Research Group with funding from NSF, NASA and other federal agencies. He was the recipient of a NSF CAREER award and has been the PI or co-PI on over fifteen million dollars of federally funded grants. While at UNL he has received many teaching awards including the university's College Outstanding Teaching Award. Dr. Pérez is the co-author with Dr. Christian B. Schlegel of the book *Trellis and Turbo Codes*.

From August 2008 to August 2010, Dr. Pérez was a Program Director in the Division of Undergraduate Education (DUE) at the National Science Foundation (NSF) where he worked on the Federal Cyber Service: Scholarship for Service (SFS) program, the Course, Curriculum and Laboratory Improvement (CCLI) program, the Advanced Technology Education (ATE) program and the Math and Science Partnership (MSP) program. He is currently on the board of directors of Unizin and WEPAN and serves as a member at large of the IEEE Education Society Board of Governors.

Dr. Pérez is currently the Interim Dean of the College of Engineering at the University of Nebraska-Lincoln.

Past Recipients

- '78 Warren B. Boast
- '79 Joseph M. Biedenbach
- '80 Edwin C. Jones, Jr.
- '81 Lyle D. Feisel
- '82 Roy H. Mattson
- '83 Robert F. Fontana
- '84 Gerald R. Peterson
- '85 Luke H. Noggle
- '86 James A. Mulligan
Sidney S. Shamis
- '87 Thomas K. Gaylord
- '88 Robert F. Cotellessa
- '89 E. Ben Peterson
- '90 Darrell L. Vines
- '91 Victor K. Schutz
- '92 William K. LeBold
- '93 Frank S. Barnes
- '94 Patricia D. Daniels
- '95 Robert W. Ritchie
- '96 Marion O. Hagler
Donald E. Kirk
- '97 Robert Sullivan
- '98 Burks Oakley II
- '99 Gerald L. Engel
- '00 Ted E. Batchman
- '01 William E. Sayle II
- '02 James Rowland
- '03 David A. Conner
- '04 Trond Clausen
- '05 J. David Irwin
Rodney J. Soukup
- '06 Robert A. Reilly
- '07 David V. Kerns, Jr.
- '08 James J. Sluss, Jr.
- '09 Manuel Castro
- '10 Michael E. Auer
- '11 Russ Meier
- '11 Claudio da Rocha Brito
and Melany M. Ciampi
- '12 Susan Lord

- '13 Charles Fleddermann
- '14 Danilo G. Zutin
- '15 Victor P. Nelson

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 served 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. Some of his ISU Honors Program students have started and endowed an undergraduate scholarship at Iowa State University in his honor.

IEEE Education Society Mac Van Valkenburg Early Career Teaching Award



Katherine Shu-Min Li
National Sun Yat-sen
University

For her adoption of creative teaching methodology, interactive learning, and project based learning techniques and for attracting students to interdisciplinary programs in design that lead to patentable product development.

Katherine Shu-Min Li (Senior Member IEEE) received the B.S. degree from Rutgers University, New Brunswick, NJ, and the M.S. and Ph.D. degrees from National Chiao Tung University, Hsinchu, Taiwan, in 2001 and 2006, respectively. She currently a Full Professor with the Department of Computer Science and Engineering, National Sun Yat-Sen University, Kaohsiung, Taiwan.

Her current research interests include Interposer Test, 2.5D/3D/SiP IC Test, Microfluidic Chip Synthesis & Test, Hardware Trojan, Side Channel Effect, Design for Security (DfS), Machine Learning & Big Data, Crosstalk Effects, Signal & Power Integrity, SOC testing, Floorplanning and Routing for Testability and Yield Enhancement, Design for Yield (DFY), Scan Reordering, Scan Routing, Low-Power Scan Technologies, particularly on Oscillation Ring Test Schemes, and Interconnect Optimization. Her recent research involves cross-field exploration in research field of IC Design & Test, Electronics Design Automation (EDA), Computer Integrated Manufacturing (CIM), Computer Aided Design (CAD) and Computer Aided Engineering (CAE), especially High Frequency Trading (HFT) in FinTech.

Dr. Li is a member of the IEEE Education and IEEE Circuits and Systems Societies, Association for Computing Machinery (ACM), and ACM Special Interest Group of Design Automation, and IEEE Women in Engineering (WIE).

Past Recipients

- '04 Parham Aarabi
- '05 John R. Buck
- '06 Lisa G. Huettel
- '07 Susan C. Hagness
- '08 Kathleen E. Wage
- '09 Min Wu
- '10 Craig Ziles
- '11 Jonathan Makela
- '12 Babak Ayazifar
- '13 Muhammad Zaman
- '14 Jill Nelson
- '15 Chengying Xu



Krishna Priya S.L.
St. Xavier's Catholic
College of Engineering

IEEE Education Society Student Leadership Award

For emblematic leadership in the execution of programs and continuous improvements of the IEEE Education Society Student Chapter and for tremendous improvement in imparting technical education.

S.L. Krishna Priya is one of the Members of IEEE who completed her Bachelor of Engineering Degree in the Department of Electronics and Communication from St. Xavier's Catholic College of Engineering. She is one among the active volunteers of IEEE Madras Section. She is an Immediate Past Chairperson of IEEE Education Society Student Branch Chapter (STB62851). She is a member of IEEE WIE Affinity Group, IEEE Education Society, IEEE Computer Society, IEEE SSIT. She is also a member of IET.

Past Recipients

- '05 Marion O. Hagler and
Burks Oakley II
- '06 Ted Batchman and
David A. Conner
- '08 David L. Soldan
- '10 Manuel Castro
- '11 Susan M. Lord
- '12 Matthew Ohland
- '13 Victor Nelson
- '15 Jeffrey Froyd

She has more than 2 years of volunteering experience in IEEE. She has played an active role in making the IEEE Education Society Student Branch Chapter vibrant in St. Xavier's Catholic College of Engineering. She has been proffered the prestigious Richard. E. Merwin Scholarship Award in the year 2016 given by IEEE Computer Society for her exemplary works towards IEEE. She is also serving as the active volunteer of IEEE Education Society, Madras Section and IEEE Nagercoil Hub Congress. She and her team along with staff members has won the UPP (University Partnership Program) mini project funding for their proposal on Improvement of Education in Kanyakumari District in 2015.

She has also done well through her academics maintaining an excellent CGPA and was granted the toppers award for three consecutive years. In recognition of her achievements in Academic, Co-curricular and Extra-curricular activities she has been awarded the Best Outgoing student award from the Department of Electronics and Communication Engineering and Women Cell of St. Xavier's Catholic College of Engineering. She has volunteered in organizing all activities of IEEE STB62851 and other activities of IEEE.