

2018 FIE CONFERENCE AWARDS PRESENTATIONS

Friday, October 20 **Luncheon**

IEEE 2017 Undergraduate Teaching Award

Friday, October 20 **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

Harriett B. Rigas Award

IEEE 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

AWARD SELECTION COMMITTEE & CHAIRS

IEEE Education Society Awards Policy Committee

Michael Auer
Lyle Feisel
Susan Lord
Joanne Bechta Dugan
James Sluss, Chair
Edwin C Jones, Jr.

Frontiers in Education Conference

Benjamin J. Dasher Best Paper Award Committee
Deborah Trytten, Emily Dringenberg, and Russ Meier
Helen Plants Award Committee
Mats Daniels, Jaci McNeil, and Rosanna Chan
Ronald J. Schmitz Award Committee
Edwin C. Jones, Jr., Chair

IEEE Education Society

Harriett B. Rigas Award	Joanne Bechta Dugan, Chair
IEEE William E. Sayle Award for Achievement in Education	Susan Conry, Chair
IEEE Transactions on Education Theodore Bachman Award	Jeff Froyd, Chair
Chapter Achievement Award	Trond Clausen, Chair
Distinguished Chapter Leadership Award	Kai Pan Mark, Chair
Distinguished Member Award	Ted Batchman, Chair
Edwin C. Jones, Jr. Meritorious Service Award	Susan Lord, Chair
Mac Van Valkenburg Early Career Teaching Award	Hossein Mousavinezhad, Chair
Student Leadership Award	Emmanuel Gonzalez, Chair



Susan M. Lord
University of San Diego

2018 IEEE Undergraduate Teaching Award

For contributions to the development of more inclusive and innovative undergraduate teaching in electrical and computer engineering

Considered by students and colleagues as an extraordinary educator and role model, **Susan M. Lord** is making engineering education more accessible and appealing to diverse students. At the University of San Diego (USD), Lord has coordinated redevelopment of the first-year engineering course multiple times to enhance student learning and improve retention. She also implemented laboratory programs for engineering design to foster continuous improvement. In her drive to make engineering education more welcoming to students of diverse backgrounds, she has conducted research to help faculty better understand who their students are, their pathways into engineering fields, and their classroom experiences. Lord was the first USD engineering faculty member to incorporate service learning where the students present hands-on science to middle- and high-school classes.

An IEEE Fellow, Lord is a professor and chair of engineering at the University of San Diego, San Diego, CA, USA.



About the IEEE Undergraduate Teaching Award

The IEEE Undergraduate Teaching Award was established by the Board of Directors in 1990 to honor teachers of electrical and electronics engineering and the related disciplines.

Past Recipients

- '03 Mehrdad Ehsani
- '04 Richard C. Jaeger
- '05 Yannis Tsividis
- '06 John Peatman
- '07 Clayton R. Paul
- '08 Muhammad H. Rashid
- '09 John C. Bean
- '10 Ned Mohan
- '11 Raghunath K. Shevgaonkar
- '12 Santosh K. Kurinec
- '13 Charles Kenneth Alexander
- '14 Hsi-Tseng Chou
- '15 Branislav M. Notaros
- '16 Terri Fiez
- '17 Bonnie Heck Ferri

In the evaluation process, the following criteria are considered: excellence in teaching undergraduate students; creative development of the undergraduate curriculum; authorship of course materials for undergraduate students; involvement with undergraduate students through activities such as advising, project supervision, faculty counseling or advising for student organizations; attracting students to engineering and scientific profession; and the quality of the nomination.



Sarah Kate Wilson
Santa Clara University

IEEE Education Society Harriett B. Rigas Award

For excellence in communications engineering, education and promoting equity

Sarah Kate Wilson earned her A.B. in Mathematics from Bryn Mawr College and her Ph.D. in Electrical Engineering at Stanford University. She has worked in both academia and industry and is currently a Professor of Electrical Engineering at Santa Clara University. Her research area includes wireless radio frequency communications, visible light communications and underwater acoustic communications.

She served as the Editor-in-Chief of IEEE Communications Letters from 2009-2011, and has been an associate editor for IEEE Transactions on Wireless Communications, IEEE Communications Letters, IEEE Transactions on Communications and the Journal of Communications and Networks. She was the IEEE Communications Society Director of Journals for the term 2012-2013, overseeing four society journals and their Editors-in-Chief. She was the elected Vice-President for Publications for the IEEE Communications Society for the term 2014-2015, overseeing all journals, magazines and online content. She is currently the Faculty Senate President at Santa Clara University.

She has received the IEEE Women in Communications Engineering Service Award, the IEEE Communications Society Joseph LoCicero Award for Exemplary Service to Publications and is a Fellow of the IEEE for "contributions to Orthogonal Frequency Division Multiplexing." She was the co-general chair (with Andrea Goldsmith) of the IEEE Wireless Communications and Networking Conference (WCNC) in 2017 <http://wcnc2017.ieee-wcnc.org/> in San Francisco which was awarded the IEEE iCon award for the best IEEE Conference of 2017.

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 Jokers
- '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
- '16 Kathleen Wage
- '17 Terri S. Fiez

IEEE Education Society Harriett B. Rigas Award

About the Rigas Award

The Harriett B. Rigas Award is presented annually by the IEEE Education Society to recognize outstanding faculty women who have made significant contributions to electrical and computer engineering education. The award consists of an honorarium, engraved gold-plated medal, and Frontiers in Education Conference registration. It was established in 1993 by Hewlett-Packard Enterprise.

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.



Beverly Ma



Jacqueline Doyle



Jacqueline Rohde



Hank Boone

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award

Understanding the Pathways of Students with Normative Attitudes in Engineering by Beverly Ma, Jacqueline Doyle, Jacqueline Rohde, Hank Boone, Allison Godwin, Geoff Potvin, Lisa Benson and Adam Kirn

Beverly Ma worked for the PRiDE research group at as a Master's student the University of Nevada, Reno after obtaining her B.S. in Mechanical Engineering. Her research examined the experiences of normative and non-normative students in the cultures of engineering. Beverly will be working to implement engineering curriculum with Engineering For Kid in Las Vegas, NV.

Jacqueline Doyle is a Postdoctoral Fellow at the Harvard-Smithsonian Center for Astrophysics, where she works in science education research. Her previous work has focused on engineering education and physics education research. Her research interests include diversity and equity efforts in STEM, how students develop their domain-specific identities, and understanding how student and teacher misconceptions in the sciences affect their learning and professional development. She has a B.S. and M.S. in Physics from Purdue University, and a M.S. and PhD in Physics from Florida International University.

Jacqueline (Jacki) Rohde is a graduate student in the School of Engineering Education at Purdue University. She is the recipient of a National Science Foundation Graduate Research Fellowship (NSF-GRF) for her work in understanding engineering students' non-traditional career pathways. Jacki's research interests in engineering education include the development of student identity and attitudes, with a specific focus on the pre-professional identities of engineering undergraduates planning to join fields outside of industry, such as medicine, law, and academia. Jacki earned a Bachelor of Science degree in Bioengineering from Clemson University in 2017. She was a National Scholar as part of Clemson University's most prestigious merit-based scholarship. She is also a founding member of the university's chapter of Grand Challenge Scholars, a program sponsored by the National Academy of Engineering.

Hank Boone is an Academic Success Coach at Nevada State College. His research focuses on First Generation engineering college students' engineering identity, belongingness, and how they perceive their college experience. This research revealed that first generation students in engineering are successful and have shown that it is possible for students to feel they belong in engineering more so than their continuing generation counterparts. His current work as a Success Coach allows him to actively utilize his research to create programs that support a high percentage of non-traditional students as well as First Generation students that are located at Nevada State College. During his M.S degree program, he worked under Adam Kirn on a project looking at non-normative engineering students and how they may have differing paths to success. His education includes a B.S. and M.S. in Mechanical Engineering from University of Nevada, Reno.



Allison Godwin

Allison Godwin, Ph.D. is an Assistant Professor of Engineering Education at Purdue University. Her research focuses what factors influence diverse students to choose engineering and stay in engineering through their careers and how different experiences within the practice and culture of engineering foster or hinder belongingness and identity development. Dr. Godwin graduated from Clemson University with a B.S. in Chemical Engineering and Ph.D. in Engineering and Science Education. Her research earned her a National Science Foundation CAREER Award focused on characterizing latent diversity, which includes diverse attitudes, mindsets, and approaches to learning, to understand engineering students' identity development. She has also been recognized for the synergy of research and teaching as an invited participant of the 2016 National Academy of Engineering Frontiers of Engineering Education Symposium. She also was an NSF Graduate Research Fellow for her work on female empowerment in engineering which won the National Association for Research in Science Teaching 2015 Outstanding Doctoral Research Award.



Geoff Potvin

Geoff Potvin, Associate Professor, Department of Physics and STEM Transformation Institute (STEM-TI): Geoff Potvin is an associate professor in the Department of Physics and the STEM Transformation Institute at FIU. He has extensive experience in survey development and quantitative and mixed-methods designs. Dr. Potvin teaches highly-reformed student-centered introductory physics courses ("Modeling Physics") which leverage student engagement and peer interactions for improved learning outcomes and student empowerment and has taught active-learning undergraduate mathematics and graduate STEM education research courses. His research interests include gender issues in the physical sciences and the cultures of STEM and the connection to the recruitment and retention of future practitioners.



Lisa Benson

Lisa Benson is a Professor of Engineering and Science Education at Clemson University, and the Editor of the Journal of Engineering Education. Her research centered most recently on her CAREER project, Student Motivation and Learning in Engineering, focuses on student perceptions, beliefs and attitudes about their future in engineering and how that affects their approaches to solving problems. Drawing from theoretical frameworks of Future Time Perspective, Possible Selves, Expectancy-Value Theory, and Self-Regulated Learning, this research has revealed connections between students' perceptions of their possible future careers and their expectations about what they should be working on in the present as engineering students. A new direction that has emerged from this work is examining aspects of epistemic cognition, or the processes that students engage in related to building their knowledge and skills in engineering, within students' educational experiences. Relatedly, Dr. Benson's research has expanded to include student trajectories through engineering based on their perceptions of belongingness and identity within engineering cultures. She holds a B.S. in Bioengineering from the University of Vermont, and M.S. and Ph.D. in Bioengineering from Clemson University.



Adam Kirn

Adam Kirn, Ph.D., is an Assistant Professor of Engineering Education at University of Nevada, Reno. His research focuses on the interactions between engineering cultures, student motivation, and their learning experiences. His projects involve the study of student perceptions, beliefs and attitudes towards becoming engineers, their problem solving processes, and cultural fit. His education includes a B.S. in Biomedical Engineering from Rose-Hulman Institute of Technology, a M.S. in Bioengineering and Ph.D. in Engineering and Science Education from Clemson University.

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 Thoennessen, 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, Guili Zhang, Brian Thorndyke, and Timothy J. Anderson
- '05 Gregory A. Moses and Michael Litzkow
- '06 Donna Riley and Gina-Louise Sciarra
- '07 Eric Hamilton and Andrew Hurford
- '08 Steve Krause, Robert Culbertson, Michael Oehrtman, Marilyn Carlson, Bill Leonard, C.V. Hollot, and William Gerace
- '09 Glenda Stump, Jenefer Husman, Wen-Ting Chung and Aaron Done
- '10 Jeffrey L. Newcomer
- '11 Kristi J. Shryock, Arun R. Srinivasa and Jeffrey E. Froyd
- '12 Robin Adams, Alice Pawley and Brent Jesiek
- '13 Hansi Keijonen, Jaakko Kurhila, and Arto Vihavainen
- '14 Lecia Barker and Jane Gruning
- '15 Natasha Nesiba, Enrico Pontelli, and Timothy Staley
- '16 Beth Rieken, Mark Schar, and Sheri Sheppard

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.



Sarah Zappe
Penn State University



Stephanie Cutler
Penn State University



Thomas Litzinger
Penn State University

Frontiers in Education Conference Helen Plants Award Best Nontraditional Session at FIE 2017

Teaching to Promote a Growth Mindset by Sarah Zappe, Stephanie Cutler, and Thomas Litzinger

Sarah Zappe is Associate Research Professor and Director of Assessment and Instructional Support in the Leonhard Center for the Enhancement of Engineering Education at Penn State. She holds a B.A. in Psychology from the University of Connecticut. She also received her M.S. and Ph.D. degrees from Penn State, where she specialized in Educational Psychology emphasizing applied measurement and testing. In her position in the Leonhard Center, Dr. Zappe is responsible for developing instructional support programs for faculty, providing evaluation support for educational proposals and projects, and conducting educational research. Her research interests primarily involve creativity, innovation, and entrepreneurship education. She has a growth mindset for leading workshops about growth mindset.

Stephanie Cutler is an assessment and instructional support specialist for the Leonhard Center for the Enhancement of Engineering Education at Penn State. Her research and teaching focus on supporting instructors (faculty and graduate students) as they work to improve their teaching and aiding the evaluation of the teaching innovations they implement in their classrooms. Dr. Cutler has been a member of the American Society for Engineering Education (ASEE) since 2009. In 2014, she received the Helen Plants Award along with her colleagues for the Special Session: Lord of the PhD: Fellowship of the Dissertation: A guide to the Engineering PhD and again in 2017 for: Innovation T-ball: Everybody Wins!! She holds a B.S. in Mechanical Engineering from Virginia Commonwealth University, an M.S. in Industrial and Systems Engineering from Virginia Tech, and a Ph.D. in Engineering Education from Virginia Tech. She maintains a growth mindset with respect to her research, teaching, and special session facilitation; and a fixed mindset with respect to her ability to run a marathon or enjoy the company of cats.

Thomas A. Litzinger is Assistant Dean for Educational Innovation and Accreditation, Director of the Leonhard Center for the Enhancement of Engineering Education, and Professor of Mechanical Engineering at Penn State. His work in engineering education involves curricular reform, teaching and learning innovations, assessment, and faculty development. Dr. Litzinger has more than 50 publications related to engineering education including lead authorship of an invited chapter on translation of research to practice for the first edition of the Cambridge Handbook of Engineering Education Research. He teaches design and thermal sciences. His disciplinary research on combustion in engines and rockets has resulted in more than 120 publications. Dr. Litzinger is Fellow ASEE and ASME. He serves as an Associate Editor for Advances in Engineering Education. He holds a B.S. in Nuclear Engineering from Penn State, an M.Eng. in Mechanical Engineering from RPI, and a Ph.D. in Mechanical and Aerospace Engineering from Princeton.

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).

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 Piket-May and Julie L. Chang
- '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
- '07 Maura Borrego, Lynita Newswander, and Lisa McNair
- '08 Lisa C. Benson, Sherrill B. Biggers, William F. Moss, Matthew Ohland, Marisa K. Orr, and Scott D. Schiff
- '09 Russell Korte and Karl A. Smith
- '10 Mark Somerville, Dave Goldberg, Sherra E. Kerns, and Russell Korte
- '11 Senay Purzer and Jonathan C. Hilpert
- '12 Lynn Andrea Stein and Caitrin Lynch
- '13 Stephanie Cutler, James J. Pembridge, Matthew Verleger, and Lauren D. Thomas
- '14 Rebecca Bates, Lisa Benson, Alan Cheville, Cynthia Finelli, Jennifer Karlin, and Susan Lord
- '15 James Huff, Brent Jesiek, Carla Zoltowski, Joachim Walther, and William Oakes
- '16 Stephanie Cutler, Thomas A. Litzinger, Sarah Zappe, and Michael Alley



Stephen Frezza
Gannon University

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 J. Hofinger
'16 Edwin C. Jones, Jr.

Frontiers in Education Conference Ronald J. Schmitz Award

For outstanding service to the Frontiers in Education Conference

Deacon Steve Frezza, PSEM is a professor of Software Engineering and chair of the Computer and Information Science department at Gannon University in Erie, PA. He maintains a Professional Software Engineering Master (PSEM) Certification from the IEEE. His research interests include Global Software Engineering, Affective Domain Learning, Engineering Education Research, as well as Philosophy of Engineering and Engineering Education. He is regularly involved in supporting the regional entrepreneurial ecosystem, as well as projects that serve the regional community. He is an active member and volunteer for both the Institute of Electrical and Electronic Engineers (IEEE) Computer Society and the American Society for Engineering Education (ASEE). He has published numerous conference papers and journal articles on innovations in Software Engineering curriculum development and Philosophy of Engineering & Computing.

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.

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



Mark Allen Weiss
Florida International
University

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

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

For contributions to the advancement of Computer Science education through his books and curricular innovations that have enhanced student learning for both high school and college students.

Mark Allen Weiss received a B.E. in Electrical Engineering from Cooper Union in 1983 and a Ph.D. in Computer Science from Princeton University in 1987. He joined FIU in 1987, where he is now Eminent Scholar Chaired Professor of Computer Science and Associate Dean for Undergraduate Education in the College of Engineering and Computing. Dr. Weiss also created and currently serves as the Interim Founding Director of the School of Universal Computing, Construction, and Engineering EDucation (SUCCEED), which is the first engineering education department at a minority-serving institution.

Professor Weiss is most well-known as the sole author of nine textbooks, in 20 US editions. His first text, “Data Structures and Algorithm Analysis” published in 1991, along with subsequent versions in C, Ada, C++, and Java, have been market leaders for two decades. Dr. Weiss served on the Ad-Hoc Committee that advised the College Board on how to incorporate C++ into the Advanced Placement Exam, and then served as a member of the College Board’s Advanced Placement Computer Science Development Committee, including a four-year term as chair, as it redesigned the Advanced Placement curriculum twice, first from Pascal to C++, and then from C++ to Java. In recent years, Dr. Weiss has been the FIU lead in securing over ten million dollars of external funding for FIU’s Information Technology related programs.

FIU has recognized Professor Weiss with many awards, including its Outstanding Faculty Torch Award, which is presented by the FIU Alumni Association and FIU President to a single faculty member who has made a lasting impression on the lives of FIU students and alumni. Dr. Weiss is an IEEE Fellow, AAAS Fellow, and ACM Distinguished Educator. He is the recipient of the 2015 SIGCSE Award for Outstanding Contribution to Computer Science Education and the 2017 IEEE Computer Society Taylor L. Booth Education Award.

'12 Theodore Rappaport
'13 Karen Panetta
'14 Raghunath K.
Shevgaonkar
'15 Marco Winzker
'16 Susan Lord
'17 Joseph Hughes

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.



Presentacion
Rivera-Reyes



Oenardi Lawanto



Michael Pate

IEEE Transactions on Education

Theodore E. Batchman Best Paper Award

Students' Task Interpretation and Conceptual Understanding in an Electronics Laboratory by Presentacion Rivera-Reyes, Oenardi Lawanto, and Michael Pate
IEEE Transactions on Education Volume: 60, April 2017

After receiving his doctorate in Engineering Education from Utah State University, **Presentacion Rivera-Reyes** was a postdoctoral fellow at the University of Nebraska-Lincoln conducting educational research in the Electrical and Computer Engineering Department. He participated in an NSF-funded study to determine the abstraction threshold in electrical engineering and identify relationships between cognitive processing exhibited by students and their course outcomes. Presentacion has experience in the telecommunication industry where he worked as a Project Manager developing solutions of high-speed transmission systems for internet and mobile service enterprises. Presentacion currently serves as a lecturer in the Department of Engineering Education of the School of Engineering and Applied Sciences at SUNY-Buffalo. He teaches courses on fundamentals of electric circuits for non-electrical engineering majors and conducts educational research in undergraduate electrical engineering related to problem-solving and hands-on activities in the classroom and laboratory environments. Presentacion is collaborating in a research project to understand the psychological links between spatial visualization skills and engineering problem solving while simultaneously establishing neurological evidence for these links.

Oenardi Lawanto is an Associate Professor in the Department of Engineering Education at Utah State University, USA. He received his BSEE from Iowa State University, his MSEE from the University of Dayton and his PhD from the University of Illinois at Urbana-Champaign. Before coming to Utah State, Dr. Lawanto taught and held several administrative positions at one large private university in Indonesia. He has developed and delivered numerous international workshops on student-centered learning and on-line learning-related topics during his service. Dr. Lawanto's research interests include cognition (and metacognition), self-regulated learning, problem-solving, and on-line learning.

Dr. Pate earned his Bachelors and Masters degrees in Agricultural Education from the University of Arkansas. He earned his PhD in Agricultural Education from Iowa State University. Dr. Pate continues to be enthusiastic about his teaching after teaching high school for three years. He serves Penn State University as the Nationwide Insurance Associate Professorship of Agricultural Safety and Health providing leadership as the Extension Safety Specialist. Michael's passion for teaching comes from the desire help students improve their technical problem solving skills. He has focused on advancing educational methodologies through the investigation and implementation of experiential learning. Dr. Pate genuinely enjoys teaching and has a sincere interest in developing a deeper professional focus on understanding how people learn and apply knowledge in agricultural settings. It is important to him that students investigate the implications and impact of potential solutions to technical problems in agriculture. His teaching philosophy centers on the perspective that problem solving skills are critical for success in all endeavors. Michael's focus is to equip students with the ability to identify system problems, formulate possible solutions, and analyze the impact of alternative solutions on social and economic institutions.

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
- '16 Jana Reisslein, Amy M. Johnson, and Martin Reisslein
- '16 Susan Lord, Richard Layton, and Matthew Ohland
- '16 Kayode P. Ayodele, Isaac A. Inyang, and Lawrence O. Kehinde
- '17 Justin M. Foley, Shanna Daly, Catherine Lenaway, and Jamie Phillips
- '17 Yu-Tzu Lin, Cheng-Chih Wu, Ting-Yun Hou, Yu-Chih Lin, Yu-Chih Lin, and Chia-Hu Chang

IEEE Education Society Outstanding Chapter Achievement Award

For contributions to the revitalization, sustainability and services to the IEEE Education Society members in Spain



Spanish Chapter

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
- '13 India Council
- '16 New South Wales
- '17 Tokyo Chapter

Spanish Chapter Chairman: 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 obtained 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, Open Educational Resources and Learning Analytics. He has performed research stays in the University of Coimbra (Portugal), IRISA (Rennes, France), MTA-ZSTAKI (Budapest, Hungary) and University of Kumamoto (Japan) and ISEP (Porto, Portugal). He coordinated the research network TELGalicia since 2012 until 2015.

Currently, Manuel is acting as the Spanish Chapter of the IEEE Education Society chairman for the period 2018-2019. The other members of the board are: Óscar Martínez Bonastre as Elected and Future Chairman from the Universitas Miguel Hernández, Javier García Zubía as Past Chairman, from University of Deusto, José Ángel Sánchez Ortiz as secretary from the I.E.S. Juan Antonio Castro-Talavera de la Reina, Francisco Mur Pérez as Treasurer from the UNED, and as members Francisco Javier Arcega Solsona from the University of Zaragoza, Elio San Cristóbal Ruiz from UNED and Pedro Muñoz Merino from University Carlos III



Professor Reisslein
Arizona State
University

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
- '16 Francisco Arcega
- '17 Gabriel Diaz

IEEE Education Society Distinguished Chapter Leadership Award

*For leadership in promoting important activities in the Phoenix
Chapter of the IEEE Education Society*

Martin Reisslein (S'96-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 his Ph.D. in systems engineering from the University of Pennsylvania in 1998. He currently serves as Associate Editor for the IEEE Transactions on Mobile Computing, the IEEE Transactions on Education, and IEEE Access, as well as Computer Networks. He is Associate Editor-in-Chief of the IEEE Communications Surveys & Tutorials, Co-Editor-in-Chief of Optical Switching and Networking, and chairs the steering committee of the IEEE Transactions on Multimedia. He has chaired the Phoenix Chapter of the IEEE Education Society since 2005.



Predrag Pale
University of Zagreb

IEEE Education Society Distinguished Chapter Leadership Award

For leadership in promoting important activities in the Croatia Chapter of the IEEE Education Society

Predrag Pale initiated and led diverse projects: from small ones to nation wide projects, from short term to projects spanning several years in the broad area of human activities. Predrag Pale graduated and received masters degree form the Faculty of Electrical Engineering and Computing at University of Zagreb.

He was involved in basic computer technologies, designing, building and deploying hardware and software, operating systems and computer networks. However, major part of more than 25 years of his professional activity was devoted to the application of information and communication technologies. Deliberately and targeting he was accumulating broad experience in applying ICT areas from civil engineering to medicine, from libraries, government, business and finance to media and education. Working in the industry he gained fundamental experience in design, production and application.

He has envisioned, initiated and led Croatian Internet project, System of Scientific Information of Croatia, National Library System and other large scale projects. From 1993 to 2000 he was a Deputy Minister of Science and Technology in charge of ICT. He founded, developed and led a department of the ministry, a government agency, several NGOs and companies both in Croatia and internationally.

Through all those activities he was continuously learning not only technological but also organizational knowledge and skills. They have been greatly amended and integrated through learning opportunities with best international individuals and organizations like: Harvard University, William Davidson Institute, Management Centre Europe, Business Management Consultants etc.; in the fields of project management, change management, knowledge management, team, time, goal management as well as organization and management of state and local government.

He started teaching at the Faculty of Electrical Engineering and Computing at University of Zagreb in early 1990s. Since 1997 he is actively experimenting with and researching the use of ICT in education. Observing himself and others, learning more from his own mistakes than successes, listening to knowledge, experience and wisdom of international experts in change management he created his own “recipe” for successful management. Recognized and contemporary theories he mixes with his own experience and views helping his audience to find their own way, method and solution.

There are three things in the world that make him “tick”: an idea that gets realized, figuring something out, and the “Aha!” effect in the eyes of his audience.

He was awarded the National medal «Danica Hrvatska» with effigy of “Rudjer Bošković” and with the “State Award for Science”.



James Rowland
University of Kansas

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
- '16 Michael Auer
- '17 Rob Reilly

IEEE Education Society Distinguished Member Award

For contributions to the founding of the FIE, long leadership in the Education Society, and many years of service to ABET

James R. Rowland is a Life Fellow of the IEEE. During the 1980s and 1990s, he served as Education Society president, as IEEE Admissions and Advancement Committee chair, and as a member of three IEEE major boards. He received an IEEE Centennial medal in 1984, Education Society awards for achievement and meritorious service, and was recognized among the Founders of the IEEE/ASEE Frontiers in Education (FIE) Conference begun in 1971. He recently chaired the Education Society Fellows Committee for six years. He continues to serve as an ABET program evaluator (PEV) with over 40 campus visits for IEEE and ASEE.

His professional career spanned over 50 years as an electrical engineering professor at three universities. He retired and became Professor Emeritus in June 2017 after 32 years as a professor at the University of Kansas and had held faculty positions at Georgia Tech and Oklahoma State University. He had earned the PhD in electrical engineering at Purdue University in 1966.

His wife is ASEE Life Fellow Mary Anderson-Rowland, who had been his FIE session chair in 1992 following their then recent losses of both spouses to cancer. They plan a 25th anniversary celebration next year.



Diane Rover
Iowa State University

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
- '16 Lance Pérez
- '17 Jeffrey E. Froyd

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

For excellent contributions to the Education Society, particularly service on the Finance Committee and the Board of Governors

Diane Rover is a University Professor of Electrical and Computer Engineering at Iowa State University. She currently serves as the alliance director for the NSF-funded IINSPIRE LSAMP Program. She co-leads projects in the department funded by the NSF RED and S-STEM programs. She has held various faculty and administrative appointments at ISU and Michigan State University since 1991. She has served on the IEEE Education Society Board of Governors and on the IEEE Committee on Engineering Accreditation Activities. She represented IEEE on the Engineering Accreditation Commission of ABET from 2009-2014 and served on the EAC Executive Committee. She also has served in the ASEE ECE Division. Dr. Rover is a Fellow of the IEEE and of ASEE. Her teaching and research has focused on engineering education, embedded computer systems, reconfigurable hardware, parallel and distributed systems, visualization, and performance monitoring and evaluation. She received the B.S. in computer science in 1984, and the M.S. and Ph.D. in computer engineering in 1986 and 1989 (ISU).

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.



Robert Pilawa-Podgurski
University of California, Berkeley

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
- '16 Katherine Shu-Min Li
- '17 Ali Mehrizi-Sani

IEEE Education Society Mac Van Valkenburg Early Career Teaching Award

For demonstrated passion for teaching and commitment to individual student growth, and his curriculum innovations in hands-on learning in the area of electric power and energy systems

Robert Pilawa-Podgurski received dual B.S. degrees in physics, electrical engineering and computer science in 2005, the M.Eng. degree in electrical engineering and computer science in 2007, and the Ph.D. degree in electrical engineering in 2012, all from the Massachusetts Institute of Technology.

He is currently an Associate Professor in the Electrical Engineering and Computer Sciences Department at the University of California, Berkeley. Previously, he was an Associate Professor in Electrical and Computer Engineering at the University of Illinois Urbana-Champaign. He performs research in the area of power electronics. His research interests include renewable energy applications, electric vehicles, energy harvesting, CMOS power management, high density and high efficiency power converters, and advanced control of power converters. Dr. Pilawa-Podgurski received the Chorafas Award for outstanding MIT EECS Master's thesis, the Google Faculty Research Award in 2013, and the 2014 Richard M. Bass Outstanding Young Power Electronics Engineer Award of the IEEE Power Electronics Society, given annually to one individual for outstanding contributions to the field of power electronics before the age of 35. In 2015, he received the Air Force Office of Scientific Research Young Investigator Award, the UIUC Dean's Award for Excellence in Research in 2016, the UIUC Campus Distinguished Promotion Award in 2017, and the UIUC ECE Ronald W. Pratt Faculty Outstanding Teaching Award in 2017. Since 2014, he serves as Associate Editor for IEEE Transactions on Power Electronics, and for IEEE Journal of Emerging and Selected Topics in Power Electronics. He is co-author of nine IEEE prize papers.

About the Mac E. Van Valkenburg Award

This award recognizes members of the IEEE Education Society who have made outstanding contributions to teaching unusually early in their professional careers, as evidenced by teaching performance, development of new teaching methods, and curricular innovation in fields of interest to the IEEE Education Society. Nominations are evaluated on the basis of the candidate's statement of teaching philosophy and practice, letters of support from students and peers, and student evaluations.

The award includes an honorarium, plaque and certificate; and paid registration to the Frontiers in Education (FIE) Conference. Full-time (or equivalent) faculty who are within the first ten years following receipt of their Ph.D. (or other appropriate terminal degree), and have had a minimum of two academic years of appointment as a faculty member, may be nominated. Individuals nominated for this award must be members of the IEEE Education Society and members of the IEEE.

About Professor M. E. Van Valkenburg

Professor Van Valkenburg earned his BSEE at the University of Utah, his MSEE at the Massachusetts Institute of Technology, and his PhD at Stanford University. He was the author of three outstanding textbooks, *Network Analysis*, (First Edition 1955, followed by several editions), *Introduction to Modern Network Synthesis* (1960) and *Analog Filter Design* (1982).

Although he was recognized throughout his career for achievements in circuit theory, beacon antennas, servomechanisms, and computer science, Van Valkenburg was even more renowned for his commitment to engineering education and for his textbooks. In both undergraduate and postgraduate classrooms he was a master teacher. One of his students said, in effect, that he never left the postgraduate classes without ideas for thesis research. His PhD students have made many contributions to universities and industries throughout the world. . At his memorial service in 1997, Dr. Steven Sample remarked, "Mac Van Valkenburg was, first and foremost, a teacher—a teacher par excellence—one of the very best engineering teachers in the world."

In 1955, Van Valkenburg came to the University of Illinois as a member of the Electrical Engineering faculty and as Associate Director of the Coordinated Science Laboratory. In 1966, he went to Princeton as head of its Electrical Engineering department. Eight years later, he returned to the University of Illinois, and in 1982, he received the first endowed chair in the College of Engineering, the W. W. Grainger Chair in Electrical Engineering. Van Valkenburg served as Dean of the College of Engineering from 1984 until his retirement in 1988.

A member of the National Academy of Engineering and a Fellow of IEEE, Van Valkenburg received numerous awards and honors for his efforts in engineering education, including the Halliburton Engineering Education Leadership Award, the IEEE Education Medal, the ASEE Lamme Medal (ASEE's highest honor), the ASEE George Westinghouse Award, the IEEE Centennial Medal, the Guillemin Prize, and Distinguished Alumni awards from the University of Utah and the College of Engineering at Illinois.

Van Valkenburg also served in a number of capacities within the professional community: as Vice President of IEEE, as Editor of Proceedings of the IEEE and IEEE Transactions on Circuit Theory, and as Editor in Chief of IEEE Press.



Kavyashree Prakashan
St. Xavier's Catholic
College of Engineering

Past Recipients

- '09 Seiji Isotani
- '10 Emmanuel Gonzalez and
Kai-Pan Mark
- '11 Dario Schor
- '12 Elio San Cristobal Ruiz
and Sergio Martin
- '13 Subhamoy Mandal
- '14 Liang-Bi Chen
- '15 German Carro
Fernandez
- '16 Krishna Priya S.L
- '17 Ramon Carrasco

IEEE Education Society Student Leadership Award

For showing the lighted path of success to volunteers with the potential through the global platform of IEEE to enhance the skills within the Education Society and also for being an inspiration for peer groups to be an innovator that leads to leadership for better living

Ms. Kavyashree Prakashan, pursued her Bachelor Degree in Computer Science and Engineering from St. Xavier's Catholic College of Engineering, Nagercoil, India. She is one among the active volunteers in IEEE Madras Section and served as the immediate past chairperson of IEEE Education Society Student Branch Chapter – 62851. She showed her vibrancy by volunteering for all the events of her StB – 62851, together with the IEEE Education Society, WIE Affinity Group and Computer Society. The sign mark of her volunteer-ship was depicted through publishing a paper “Transformation of Health Care System using Internet of Things in Villages” in IEEE Xplore and also by organizing events like AISTA- '17, a National Level Technical Symposium, the preliminary of SS12 Project Contest-2017 and many more. She severed as a well-experienced volunteer that made her a good leader, creating her own vision of “Be the creators, not the followers because education is a way of exploring.” Apart from IEEE, she also served as the joint secretary for her department and executive member of many other clubs too, together with well-maintained academic background.