

2017 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, Co-Chair
Edwin C Jones, Jr., Co-Chair

Frontiers in Education Conference

Benjamin J. Dasher Best Paper Award Committee
Alison Clear, Noemi Mendoza Diaz, and Diane Rover
Helen Plants Award Committee
Melany Ciampi, Mats Daniels, and Jaci McNeil
Ronald J. Schmitz Award Committee
Melany Ciampi and Robert Hofinger

IEEE Education Society

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



Bonnie Heck Ferri
Georgia Institute
Of Technology

2017 IEEE Undergraduate Teaching Award

For pioneering mobile hands-on learning and flipped classroom techniques for undergraduate engineering education

A leader in classroom innovation, the programs developed by Bonnie H. Ferri are transforming undergraduate engineering education for students at the Georgia Institute of Technology and around the world. Ferri is pioneering the use of mobile, hands-on laboratory equipment that allows electrical and computer engineering (ECE) students to perform exercises at home or in class instead of in traditional laboratories. This has also allowed lecture-based courses to now have a laboratory component. Ferri also has improved learning environments by incorporating the latest flipped/blended techniques into the ECE curriculum. In this format, prerecorded lectures are viewed outside of class to allow students to interactively work on problems in the classroom during what would normally be lecture time.

An IEEE Senior Member, Ferri is a professor with the School of Electrical and Computer Engineering at the Georgia Institute of Technology, Atlanta, GA, USA.



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

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.

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.



Terri S. Fiez
University of Colorado
Boulder

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

IEEE Education Society 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

Terri Fiez earned B.S. and M.S. degrees in electrical engineering from the University of Idaho, Moscow, and a Ph.D. in electrical and computer engineering from Oregon State University. She is currently Vice Chancellor for Research and Innovation at University of Colorado Boulder. Prior to Sept. 2015, Dr. Fiez was Head of the School of Electrical Engineering and Computer Science at Oregon State University (OSU). In 2008-09 she took a leave of absence from OSU to co-found, launch and serve as CEO of a solar electronics startup company. Her scholarly interests focus on analog and RF integrated circuits for mobile communications and novel approaches to innovative education. She has over 150 publications and has advised more than 80 graduate students. She was recognized as a National Science Foundation Young Investigator awardee, awarded the 2006 IEEE Educational Activities Board's Innovative Education Award and the 2016 IEEE Undergraduate Teaching Award. She is a Fellow of the IEEE.

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.



Beth Rieken
Stanford University



Mark Schar
Stanford University

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award

Trait Mindfulness in an Engineering Classroom: An exploration of the relationship between mindfulness, academic skills, and professional skills by Beth Rieken, Mark Schar and Sheri Sheppard

Beth Rieken is a Ph.D. candidate in Mechanical Engineering. She has a broad research base spanning a variety of topics within mechanical and aerospace engineering. She completed work on scramjet combustion at the University of Virginia and NASA as an undergraduate. As a Stanford Masters student, she worked in the Pruitt Microsystems Lab where she designed bio-MEMS devices for cell mechanobiology research applications. Since becoming a Ph.D. candidate, she has worked in the Hanson Research Lab researching laser diagnostics for combustion applications, including a year-long project at Sandia National Laboratories. Her experience in many different lab settings has given her the perspective and motivation to pursue engineering education research.

Beth's primary research interest is on the effects of mindfulness in collaborative engineering design solutions. She has worked in STEM outreach with both the Haas Science in Service program and Engineering is Elementary program. She has also studied in the Stanford School of Education, served as a TA for Intro to Fluid Mechanics, and was part of an NSF-funded project run through the CETL at the University of Washington studying pioneers in engineering education.

The focus of **Mark Schar's** research can broadly be described as "pivot thinking," the cognitive aptitudes and abilities that encourage innovation, and the tension between design engineering and business management cognitive styles. To encourage these thinking patterns in young engineers, Mark has developed a Scenario Based Learning curriculum that attempts to blend core engineering concepts with selected business ideas. Mark is also researches empathy and mindfulness and its impact on gender participation in engineering education. He is a Lecturer in the School of Engineering at Stanford University and teaches the course ME310x Product Management and ME305 Statistics for Design Researchers.

Mark has extensive background in consumer products management, having managed more than 50 consumer driven businesses over a 25-year career with The Procter & Gamble Company. In 2005, he joined Intuit, Inc. as Senior Vice President and Chief Marketing Officer and initiated a number of consumer package goods marketing best practices, introduced the use of competitive response modeling and "on-the-fly" A/B testing program to qualify software improvements.

Mark is the Co-Founder and Managing Director of One Page Solutions, a consulting firm that uses the OGSP® process to help technology and branded product clients develop better strategic plans. Mark is a member of The Band of Angels, Silicon Valley's oldest organization dedicated exclusively to funding seed stage start-ups. In addition, he serves on the board of several technology start-up companies.

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



Sheri Sheppard
Stanford University

'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

'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

Sheri Sheppard teaches both undergraduate and graduate design-related classes, and conducts research on fracture mechanics and applied finite element analysis, and on how people become engineers. From 1999-2008 she served as a Senior Scholar at the Carnegie Foundation for the Advancement of Teaching, leading the Foundation's engineering study. In addition to publishing technical papers, reports, and textbooks, she has led or co-led several large, multi-institutional projects to build new educational research programs and related resources, such as the Center for the Advancement of Engineering Education (CAEE), The National Center for Engineering Pathways to Innovation (Epicenter), and a program on summer research experiences for high school teachers. Her industry experience includes engineering positions at Detroit's "Big Three" — Ford Motor Company, General Motors Corporation, and Chrysler Corporation. She earned her bachelor's degree from the University of Wisconsin, and her PhD at the University of Michigan. At Stanford she has served a chair of the faculty senate, as associate vice provost for graduate education, and is the longtime faculty founder of and adviser to the graduate student group MEwomen. Her work has been recognized with numerous honors and awards, including the Walter J. Gores Award, Stanford University's highest award for excellence in teaching and the Chester F. Carlson and Ralph Coats Roe Awards of the American Society for Engineering Education in recognition of distinguished accomplishment in engineering education, and for outstanding teaching and notable contributions to the mechanical engineering profession.

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.



Stephanie Cutler
Penn State University



Thomas A. Litzinger
Penn State University



Sarah Zappe
Penn State University

Frontiers in Education Conference Helen Plants Award Best Nontraditional Session at FIE 2016

Innovation T-Ball: Everybody Wins!! by Stephanie Cutler, Thomas Litzinger, Sarah Zappe, and Michael Alley

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*. 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 also played softball throughout her childhood, which informed the development of this innovative special session and is thrilled to have a reason to include that in her professional bio.

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 article in the 100th Anniversary issue of JEE and 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 was selected as a Fellow of ASEE in 2008 and of ASME in 2012. 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.

Sarah Zappe is Senior Research Associate 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 working with faculty to publish educational research. Her research interests primarily involve creativity, innovation, and entrepreneurship education. She has been a spectator at many tee-ball games in the past several years, which was an inspiration when helping to develop this workshop.



Michael Alley
Penn State University

Holding a master of science in electrical engineering and a master of fine arts in writing, **Michael Alley** is an associate professor of engineering communication at Penn State. He is the author of *The Craft of Scientific Presentations* (Springer, 2013), which has been translated to Japanese and Chinese. Over the past two decades, he has taught engineering writing and presentations to engineers and scientists at more than 150 institutions. Sites include Google, MIT, Army Corps of Engineers, Texas Instruments, Simula Research Laboratory (Norway), Shanghai Jiao Tong University, and the European Space Organization. Alley's websites on communication are top Google listings for the topics of engineering writing and engineering presentations. His writing site receives more than 1.5 million page downloads each year.

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
- '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
- '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

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).



Joseph Hughes
Georgia Institute of
Technology

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 computer science and engineering through academic leadership at Georgia Institute of Technology, for leadership in the IEEE Education Society, for service to accreditation through IEEE and ABET, for development of computer science and engineering curricula through the Model Curricula studies, and for contributions to the Frontiers in Education Conference.

Joseph L. A. Hughes is a Professor in Electrical and Computer Engineering at the Georgia Institute of Technology, Atlanta. He received the B.S.E.E. (1979) from Illinois Institute of Technology, Chicago, and the M.S.E.E. (1980) and Ph.D. (1986) from Stanford University, Palo Alto, California. He is a Fellow of IEEE and of ASEE, a former president of the IEEE Education Society, and a former chair of ASEE's ECE Division.

Dr. Hughes joined the Georgia Tech faculty in 1986 as an assistant professor, specializing in integrated circuit design and testing. He became an ECE associate chair in 1997 and served as senior associate chair from 2006-2013, with responsibility for academic program operation and administration. He was a member of the leadership team for the development of both the 2004 and 2016 *Computer Engineering Curricula* reports in the ACM/IEEE-CS *Computing Curricula* series. Dr. Hughes has served on ABET's Engineering Accreditation Commission and IEEE's Educational Activities Board, Committee on Engineering Accreditation Activities, Accreditation Policy Council, and Technical Activities Board.

Dr. Hughes has been widely recognized for his contributions to engineering education and program development, with awards including the 2007 Ronald J. Schmitz Award for outstanding service to the Frontiers in Education conference and the 2005 ECE Distinguished Educator Award from the ECE Division of ASEE.

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

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.



Justin M. Foley



Shanna Daly



Jamie Phillips

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

“Investigating Student Motivation and Performance in Electrical Engineering and Its Subdisciplines”

Justin M. Foley, Shanna Daly, Catherine Lenaway, and
Jamie Phillips

IEEE Transactions on Education Volume: 59, Issue: 4, November 2016

Justin M. Foley (S'11–M'12) received the B.S. degrees in civil engineering and applied physics from Michigan Technological University, Houghton, MI, USA, in 2008, and the M.S. degree in electrical engineering and Ph.D. degree in applied physics from the University of Michigan, Ann Arbor, MI, USA, in 2011 and 2014, respectively. He is currently a National Research Council Associate working at the National Institute of Standards and Technology in Gaithersburg, MD, USA. His research focuses on photonic crystals for infrared filtering applications and the optomechanical properties of suspended photonic crystal slabs.

Shanna Daly is an Assistant Professor in Mechanical Engineering at the University of Michigan. She has a B.E. in Chemical Engineering from the University of Dayton (2003) and a Ph.D. in Engineering Education from Purdue University (2008). Her research focuses on strategies for design innovations through divergent and convergent thinking as well as through deep needs and community assessments using design ethnography, and translating those strategies to design tools and education. Her research is supported by the National Science Foundation and the Helmsley Foundation.

Catherine Lenaway received the B.B.A. degree in marketing from Western Michigan University, Kalamazoo, MI, USA, in 2005, and the M.Ed. degree in higher education/student affairs from Eastern Michigan University, Ypsilanti, MI, USA, in 2009. She is the Coordinator of Undergraduate Advising in Electrical and Computer Engineering with the University of Michigan, Ann Arbor, MI, USA. Her current research interests are engineering education and the transition young adults make from higher education to the real world.

Jamie Phillips (M'01–SM'06) received the B.S., M.S., and Ph.D. degrees in electrical engineering from the University of Michigan, Ann Arbor, MI, USA, in 1994, 1996, and 1998, respectively. He was with Sandia National Laboratories, Albuquerque, NM, USA, and the Rockwell Science Center, Thousand Oaks, CA, USA, before returning to the University of Michigan, where he is currently an Arthur F. Thurnau Professor. His current research interests and contributions are in optoelectronic devices and engineering education.

IEEE Transactions on Education Theodore E. Batchman Best Paper Award

“Tracking Students’ Cognitive Processes During Program Debugging—An Eye-Movement Approach”

Yu-Tzu Lin, Cheng-Chih Wu, Ting-Yun Hou, Yu-Chih Lin, Fang-Ying Yang, and Chia-Hu Chang

IEEE Transactions on Education Volume: 59, Issue: 3, August 2016



Yu-Tzu Lin



Cheng-Chih Wu



Ting-Yun Hou



Yu-Chih Lin

Yu-Tzu Lin received the B.S. and M.S. degrees in information and computer education from National Taiwan Normal University, and the Ph.D. degree in computer science from National Taiwan University. She is currently an associate professor in the Graduate Institute of Information and Computer Education, National Taiwan Normal University. Her research interests include computer science education, educational technologies, social network analysis, digital content analysis, multimedia security, pattern recognition, and image processing. She has also been involved in the development of national K-12 computing curriculum and the related projects.

Cheng-Chih Wu received the B.Ed. and M.Ed. degrees in industrial education from National Taiwan Normal University and the Ph.D. degree in (computer) science education from The University of Texas at Austin. He is currently a distinguished professor in the Graduate Institute of Information and Computer Education, National Taiwan Normal University. His research interests include K-12 computing curriculum, e-Learning, and ICT-integrated learning. He has been playing a key role in Taiwan’s ICT/CS education, including leading the task forces for developing national ICT master plan and revising national K-12 computing curriculum, and serving as the principal investigator of Intel Education programs in Taiwan. He was the chairman of the Department of Information and Computer Education (now a graduate institute), director of Information Technology Center, and Vice President for Academic Affairs in National Taiwan Normal University, and is now Executive Vice President of the university.

Ting-Yun Hou received the B.S. degree in information management from Fu Jen Catholic University, Taiwan, in 2011 and received the M.S. degree in computer science education from National Taiwan Normal University in 2013. Her research field was programming learning and neuroscience. She is now an administration officer in New Taipei Municipal An-Kang High School.

Yu-Chih Lin received the B.S. degree in mechanical engineering from National Taiwan University, the M.S. degree in biomedical engineering from National Cheng Kung University, and the Ph.D. degree in mechanical engineering from National Taiwan University. She currently works in the Department of Biomedical Engineering, Yuanpei Institute of Science and Technology, Taiwan, as an assistant professor. Her research interests are in the fields of vibration analysis of piezoelectric materials, biomechanics, human gait analysis, and photomechanics.



Fang-Ying Yang



Chia-Hu Chang

Yu-Chih Lin received the B.S. degree in mechanical engineering from National Taiwan University, the M.S. degree in biomedical engineering from National Cheng Kung University, and the Ph.D. degree in mechanical engineering from National Taiwan University. She currently works in the Department of Biomedical Engineering, Yuanpei Institute of Science and Technology, Taiwan, as an assistant professor. Her research interests are in the fields of vibration analysis of piezoelectric materials, biomechanics, human gait analysis, and photomechanics.

Chia-Hu Chang is currently the head of Data Science at Vpon (a big data ad technology company in Asia). He is responsible for building and leading a team of data engineers, data analysts, and data scientists for supporting all the data-related business and guiding the strategic direction. Prior to joining Vpon in 2014, he was a postdoctoral research fellow working closely with the researchers and professors in the Communication and Multimedia Lab (CMLab) in the Department of Computer Science and Information Engineering (CSIE), National Taiwan University. He received the B.S. degree in electrical engineering (EE) from National Chung Hsing University (NCHU), Taiwan, in 2003, and the M.S. degree in communication engineering (CE) from National Central University (NCU), Taiwan, in 2005. Under the supervision of Prof. Ja-Ling Wu, IEEE fellow, he received the Ph.D. degree in computer science from National Taiwan University (NTU), Taiwan, in 2010. The multidisciplinary experience has supported both his academic and industrial competence. His research interests include deep learning, machine learning, data mining, artificial intelligence, multimedia networking (e.g., video streaming), multimedia content analysis and its applications (e.g., augmented reality, education, and online multimedia advertising). He has published several papers in the top conferences including ACM Multimedia and contributed book chapters in the professional books published by IGI Global, Springer, and CRC Press, in the field of multimedia. Also, he has served as a reviewer for several international conferences and journals, such as IEEE Transaction on Multimedia (TMM).

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

Tokyo Chapter



Hitoshi Sasaki



Takako Akakura

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

IEEE Education Society Chapter Achievement Award

For providing exemplary technical activities, membership services, and professional endeavors.

Hitoshi Sasaki was born in Iwate prefecture, Japan, in 1968. He received a Ph.D. degree in engineering from Takushoku University, Japan, in 1999.

In 1995, he joined the Faculty of Engineering, Takushoku University, as a Research associate, and a lecturer, and an Assistant Professor in 2001 and 2004 respectively. He currently a Professor in the Department of Computer Science since 2013. His current research involves educational technology.

Prof. Sasaki has been involved in IEEE Education Society Japan Chapter (Jt. Tokyo, Shin-Etsu, Nagoya, Sendai, Kansai, Sapporo, Shikoku, Fukuoka and Hiroshima Section) for approximately 15 years. And he was the chair of between 2012 and 2014.

He is a senior member of institute of Electronics, Information and Communication Engineers and a member of Information Processing Society of Japan, Japan Society for Educational Technology, and Japanese Society for Information and Systems in Education.

Takako Akakura was born in Toyama, Japan. She received the B.Law, M.Law, and Ph.D.(Law) degree from Faculty of Law, Kobe University, Kobe, Japan, respectively. She received her Ph.D.(Human Science) degree from Department of Educational Technology, Faculty of Human Science, Osaka University.

In 2001, she joined the Faculty of Engineering, Tokyo University of Science. Where she has been a Professor since 2005. Her current research interests include educational technology and law for technology. She is a senior member of IEICE, Japan, and the director of Japan Society for Educational Technology. She was the vice chairman of Japan society for Educational Technology from 2013 to 2015.

She has been the chair of Japan Chapter, Education Society of IEEE since 2015. She was the recipient of the Best Poster Award of ICCE2007.



Gabriel Diaz
Spanish Chapter

IEEE Education Society Distinguished Chapter Leadership Award

For promoting high level activities for the members of the Spanish Chapter of the IEEE Education Society

Dr. Gabriel Díaz received the M. Sc. and Ph.D. in Physics from UAM (Universidad Autónoma de Madrid). He worked for Digital Equipment Corporation for 10 years, working in several projects related with expert systems and taking the responsibility of several learning and consultancy areas, related with communications and information security. He received several European technical excellence awards at Digital. He also worked for other IT companies, such as Hewlett Packard and Cisco Systems. He has several IT industry certificates as Microsoft's MCSE or MCT, Cisco's CCNA, CCSI and CCSP, HP's Tru64 Unix system engineer, Sun Microsystems' system engineer or several other related with ITIL and ISO 20000.

He founded his own company, ADSO, dedicated to training and consultancy for communications networks, information security and IT services management. Since 2006, he has worked for UNED, where he leads the Industrial Electrical Electronics and Control Engineering Research Master. His research interests include security measurement and metrics, security for Process Control Systems and the different approaches for getting the best of ICT technologies applied to different kinds of security and electronics learning for Higher Education at universities.

Professor Diaz has been involved with IEEE and with the Spanish chapter of the IEEE Education Society for the last ten years in different positions, always regarding the activities of volunteer and officer support work. He has been Chair Elect, Chair, and Past Chair and now continues working inside the directive as an officer. During his period as Chair (2012 - 2013), he mainly focused on development activities aimed at the chapter members, focusing on accreditation and quality of education. He developed two workshops with the Spanish Accreditation Agencies regarding the changes on the ANECA and on the academic career teacher evaluation.

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



Rob Reilly
*Georgia Institute of
Technology*

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

IEEE Education Society Distinguished Member Award

*For fully supporting the Society, members, chapters and
officers inside the IEEE Education Society.*

Rob Reilly received his B. S. degree from the University of Massachusetts, Amherst; a Master of Education degree from Springfield College, Springfield and a Doctor of Education Degree from University of Massachusetts, Amherst. He has just completed a 2-year term on the IEEE Board of Directors. He has served as the president of the IEEE Education Society (2011-2012), he continues to be the Vice Chair, Member and in the Geographic Activity Board of the IEEE Computer Society. Dr. Reilly has served in a number of other IEEE positions. He has received several awards, including IGIP's Nikola Tesla Chain, the IEEE Computer Society's Golden Core Award, the IEEE William E. Sayle II Award for Achievement in Education (given by the IEEE Education Society in 2010), the IEEE Larry K. Wilson Leadership Award, and the IEEE Leadership Award (by the IEEE Member and Geographic Activity Board in 2009). While at the MIT Media Lab, his research focus was educational pedagogy – how a person learns – how educators can facilitate a person's learning journey in any knowledge domain.



Jeffrey E. Froyd
Texas A&M 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

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

For contributions to the Education Society through serving as Editor-in-Chief of the IEEE Transaction on Education and Conference Management and Program Development, and strong academic research that is improving Engineering Education worldwide.

Jeffrey E. Froyd is a Professor in the Department of Engineering Education in the College of Engineering at The Ohio State University. He served as Project Director for the Foundation Coalition, an NSF Engineering Education Coalition in which six institutions systematically renewed, assessed, and institutionalized integrated undergraduate engineering curricula, and shared their results with the engineering education community. He co-created the Integrated, First-Year Curriculum in Science, Engineering and Mathematics at Rose-Hulman Institute of Technology, which was recognized in 1997 with a Hesburgh Award Certificate of Excellence. He has authored or co-authored over 70 papers on engineering education in areas including change in STEM education, faculty development, and curricular innovation. He is currently the Editor-in-Chief for the *IEEE Transactions on Education*, a Senior Associate Editor for the *Journal on Engineering Education*, an associate editor for the *International Journal on STEM Education*, an ABET EAC Commissioner, an IEEE Fellow, and an ASEE Fellow.

'14 Danilo G. Zutin
'15 Victor P. Nelson

'16 Lance Pérez

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.



Ali Mehrizi-Sani
Washington State
University

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

IEEE Education Society Mac Van Valkenburg Early Career Teaching Award

For his enthusiastic, caring, and creative teaching that has increased excitement, engagement, and understanding in engineering, for contributions to the scholarship of teaching, and for recruitment of precollege students.

Dr. Ali Mehrizi-Sani received the B.Sc. degrees in Electrical Engineering and Petroleum Engineering from Sharif University of Technology, Tehran, Iran, in 2005, the M.Sc. degree from the University of Manitoba, Winnipeg, MB, in 2007, and the Ph.D. degree from the University of Toronto, Toronto, ON, in 2011, both in electrical engineering.

He is currently an Assistant Professor at Washington State University, Pullman, WA. He was a Visiting Professor at Graz University of Technology, Graz, Austria, in Nov. 2014, Jan. 2016, and Nov. 2016. His areas of interest include power system applications of power electronics and integration of renewable energy resources.

Dr. Mehrizi-Sani is an Editor of the IEEE TRANSACTIONS ON POWER DELIVERY, IEEE TRANSACTIONS ON POWER SYSTEMS, IEEE TRANSACTIONS ON ENERGY CONVERSION, IEEE POWER ENGINEERING LETTERS, and WILEY INTERNATIONAL TRANSACTIONS ON ELECTRICAL ENERGY SYSTEMS. He is the Chair of the IEEE Task Force on Dynamic System Equivalents, the Secretary of CIGRE WG C4.34 Applications on PMUs for Power System Dynamics, and a contributing member of several other IEEE task forces. His co-authored paper, "Trends in microgrid control," received the 2015 technical committee working group recognition award from the IEEE PES Power System Dynamic Performance Subcommittee. He was a recipient of the WSU EECS 2017 Early Career Excellence in Research Award, WSU 2016 Reid Miller Excellence in Teaching Award, the NSERC 2011 Postdoctoral Fellowship, and the 2007 Dennis Woodford prize. He was a Connaught Scholar at the University of Toronto.

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.



Ramon Carrasco

IEEE Education Society Student Leadership Award

*For increasing activities and opportunities for the students of
the IEEE Education Society.*

Ramón Carrasco is currently pursuing the Masters degree in Industrial Engineering at the ETSII (Industrial Engineering School) of the Spanish University for Distance Education (UNED). He has an Physics Masters degree of the University of Santiago de Compostela, Santiago de Compostela, Spain, in 1997. Professor of Primary Education since 1997 in the area of Sciences and Vocational Training since 2000 in the area of Computer Science. IEEE Young Professionals Past Chair. IEEEsbUNED Chair. Secretary General of the CECE (Spanish Confederation of Education Institutions). Representative of Vocational Training of de CEC (A Coruña Confederation of Entrepreneurs). He collaborated on the European collaborative GO-LAB project (Global Online Science Labs for Inquiry Learning at School)

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