



Changzhi Li
Texas Tech University

Past Recipients

- '69 Michael Athans
- '70 Andrew P. Sage
- '71 Joseph W. Goodman
- '72 Taylor L. Booth
- '73 Sanjit Mitra
- '74 Leon Ong Chua
- '75 Michael L. Dertouzos
- '76 Stephen W. Director
- '77 J. Leon Shohet
- '78 Ronald A. Rohrer
- '79 Martha E. Sloan
- '80 V. Thomas Rhyne
- '81 Ben Garland Streetman
- '82 Toby Berger
- '83 Daniel P. Siewiorek
- '84 Mathukumalli
Vidyasagar
- '85 Peter S. Maybeck
- '86 Lance A. Glasser
- '87 Kenneth L. Short
- '88 Adel S. Sedra
- '89 Frank L. Lewis
- '90 Jerry D. Gibson
- '91 Barry W. Johnson
- '92 H. Vincent Poor
- '93 Mark S. Lundstrom
- '94 Supriyo Datta
- '95 Perinkolam P.
Vaidyanathan
- '96 Prithviraj Banerjee
- '97 Edward A. Lee
- '98 Edwin K. P. Chong
- '99 Randy H. Katz

ASEE ECE Division Hewlett-Packard Frederick Emmons Terman Award

For integrating outstanding research in the field of Microwave Engineering into the classroom and for the book *Microwave Motion Sensing and Analysis*

Dr. Changzhi Li excels in teaching and research at Texas Tech University (TTU). He received the TTU Alumni Association New Faculty Award for Teaching Excellence, the Whitacre Research Award and an NSF CAREER Award. His teaching evaluations are among the very best in the Department. His students have received two fellowships/scholarships from the IEEE Microwave Theory and Techniques Society (MTT-S), six best paper awards from premier IEEE conferences, one outstanding student award from a foreign government, and a prestigious graduate student award. Dr. Li attracted more than at \$1.2 Million in competitive funding while a tenure-track professor.

Dr. Li joined TTU in fall, 2009 from the University of Florida, and was promoted to Associate Professor in 2014. He has built an RF microwave program focused on non-contact detection of vital signs such as heartbeat and respiration, enabling monitoring of patients using low-power radar without body sensors. He expanded this technique to enable tumor tracking during cancer treatment with precisely targeted radiation, enabling therapeutic radiation focused on the cancer while the target area moves due to breathing and other random patient movements. He developed a portable radar sensor device (*iMotion*) that is used by researchers at the University of Florida, UCLA, SUNY Buffalo, and Deakin University (Australia). He has more than 63 journal papers, 67 conference papers, and approximately 1200 citations.

To date his most impressive and prestigious scholarly work is a 238 page book of which he is lead author: Changzhi Li and Jenshan Lin, *Microwave Motion Sensing and Analysis*, John Wiley & Sons, ISBN: 978-0470642146, which this award recognizes. To quote one reviewer, "Unquestionably, this book, which is inclusive of various technologies now in use in microwave noncontact motion sensing and their prospective implementations, is an important addition to the microwave literature."

Dr. Li's teaching and research are acclaimed by industrial colleagues. He taught "Design & Analysis of Analog ICs in LBC7," at Texas Instruments in summer, 2013. He is a lead-user for National Instruments (NI) and AWR, receiving media coverage, equipment and cash endowments to support microwave education and research. He delivered talks to worldwide researchers during the NI Weeks in 2012 and 2013. His research on CMOS integrated temperature sensors, funded by the Semiconductor Research Corporation, provides an efficient way for thermal and power management of digital processors. He collaborates with engineers from Intel, Freescale, GLOBALFOUNDRIES, and Qualcomm to develop scattered temperature sensors for multi-core digital processors.

'00 Sergio Verdu
'01 Zoya Popovic
'02 Theodore S. Rappaport
'03 Wayne Wolf
'04 Keshab K. Parhi
'05 Ali H. Sayed
'06 Vijay K. Madisetti
'07 Russel Jacob (Jake)
Baker
'08 Keith M. Chugg
'09 David Tse
'10 Bhaskar Krishnamachari
'11 Tony Givargis
'12 Ali Niknejad
'13 Mung Chiang

Dr. Li's professional contributions include serving as associate editor for the *IEEE Transactions on Circuits and Systems II*, past area editor for the *International Journal of Electronics and Communications* and TPC co-chair for the IEEE Wireless and Microwave Technology Conference (WAMICON) in 2012 and 2013. He is secretary of the IEEE South Plains Section and a member of the IEEE MTT-S Education Committee, currently co-chairing the Graduate Fellowships Committee.

ASEE ECE Division Hewlett-Packard Frederick Emmons Terman Award (continued)

About the Terman Award

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

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



About Frederick Emmons Terman

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

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

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

Dr. Terman died in December 1982. It is in appreciation of his accomplishments and guidance that Hewlett-Packard is proud to sponsor the Frederick Emmons Terman Award.



Noel Schulz
Kansas State University

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

IEEE Education Society Hewlett-Packard Harriett B. Rigas Award

For outstanding contributions in advancing recruitment and retention of women in IEEE, the Power & Energy Society and the engineering professions

Dr. Noel Schulz is Associate Dean for Engineering Research and Graduate Programs and Paslay Professor of Electrical & Computer Engineering at Kansas State University, Manhattan, Kansas, USA. She received her B.S.E.E. and M.S.E.E. degrees from Virginia Tech in Blacksburg, Virginia, USA in 1988 and 1990, respectively. She received her Ph.D. in EE from the University of Minnesota in Minneapolis, Minnesota, USA, in 1995. Noel joined the K-State faculty in 2009 in the Department of Electrical and Computer Engineering. She started as Associate Dean for Engineering Research and Graduate Programs in August, 2012. She has a total of over 20 years of teaching experience including Michigan Technological University, Mississippi State University, University of North Dakota, and Virginia Tech.

Noel has been an advocate for women in engineering for all of her career, starting groups for women faculty in engineering at two universities. She has coordinated the IEEE Power & Energy Society women power faculty networking activities for over 20 years. As IEEE Power & Energy Society President for 2012 and 2013, advancing women in the power & energy areas was one of her key platforms and she helped initiate Women in Power events on six continents. After coming to Kansas State University in 2009, she started an initiative called the “Women of K-State.” The Women of K-State Vision is “to make Kansas State University the university of choice for women,” and its mission is “to create a structure and support system that helps K-State provide a superlative environment for the growth and advancement of all women.”

Noel is active in teaching, research, and service. In research and graduate studies, she has been very active having graduated 43 MS and 12 PhD students; published 160 papers and 2 book chapters; and brought in over \$10 M in external research through individual and collaborative projects including an U.S. National Science Foundation CAREER award. She currently serves as the Immediate Past President for the IEEE Power & Energy Society. Noel is a member of Eta Kappa Nu, Tau Beta Pi, the American Society for Engineering Education (ASEE), the Society of Women Engineers, and the National Society of Black Engineers. She served on the Board of Directors for ASEE from 2008 to 2010.

As Associate Dean for Research and Graduate Programs, she has advanced faculty development activities especially for untenured faculty, and is working to cultivate the graduate student program and environment in the College of Engineering

Noel and her husband, Kirk, have two sons—Timothy, a graduate student in computer science at the University of Tulsa; and Andrew, a student in mechanical engineering at Oklahoma State University.

IEEE Education Society Hewlett-Packard Harriet B. Rigas Award (continued)

About the Rigas Award

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

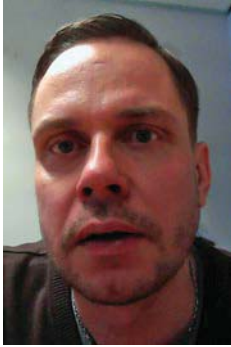
The recipient must be a tenured or tenure track woman faculty member in an ABET-accredited engineering program in the United States, with teaching and/or research specialization in electrical or computer engineering.

About Harriett B. Rigas

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

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

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



Hansi Keijonen
University of Helsinki



Jaakko Kurhila
University of Helsinki



Arto Vihavainen
University of Helsinki

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award

Carry-on Effect in Extreme Apprenticeship by Hansi Keijonen, Jaakko Kurhila and Arto Vihavainen FIE 2013, Session Number F4D

Hansi Keijonen graduated from the Tampere University of Technology with an MSc (Engineering) in textile technology in 2003. He rapidly advanced to a position of factory manager in Marimekko, the leading textile and design company in Finland. He left the company in 2010 and started his second career from scratch by enrolling into the Introduction to Programming course at the University of Helsinki. He finished his MSc in Computer Science in 2014. During 2012-13 he was a member of the Agile Education Research group RAGE and built a tool for students' study path examination.

Dr. Jaakko Kurhila graduated from the University of Helsinki with an MSc in Computer Science in 1997, a PhLic in 2000, and a PhD in 2003. Currently he is the head of studies of the Department of Computer Science at the University of Helsinki. His background is in adaptive educational systems and collaborative e-learning. In addition to the administrative position, he leads Agile Education Research group RAGE, concentrating on computer science education. He is the President-elect of the University of Helsinki Teacher's Academy (2015-2016), an academy formed from the top educators within the University of Helsinki, and the spokesperson in Finland when talking about MOOCs in programming. He is an eager proponent of excellence in education, and has extensive international experience in building ICT education for development in international settings.

Arto Vihavainen finished his MSc in Computer Science in 2011. Before graduation, he worked in the software industry for several years, spent some time working as a research assistant, and was involved in improving the teaching offered at the University of Helsinki. After graduation, he worked as a University Instructor at the University of Helsinki with the responsibility of creating and upgrading courses that were mostly related to software engineering, including MOOCs in programming. His role was crucial in the re-design of the software engineering curriculum at the department. In 2013, he started to work on his PhD in computer science education, even though he was a founding member of the Agile Education Research group RAGE already in 2011.

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 Bursleson, 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
 '07 Donna Riley and Gina-Louise Sciarra

'08 Eric Hamilton and Andrew Hurford
 '09 Steve Krause, Robert Culbertson, Michael Oehrtman, Marilyn Carlson, Bill Leonard, C.V. Hollot, and William Gerace
 '10 Glenda Stump, Jenefer Husman, Wen-Ting Chung and Aaron Done
 '11 Jeffrey L. Newcomer
 '12 Kristi J. Shryock, Arun R. Srinivasa and Jeffrey E. Froyd
 '13 Robin Adams, Alice Pawley and Brent Jesiek

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award (continued)

About the Dasher Award

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

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

About Benjamin J. Dasher

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

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

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

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

Dr. Dasher died of congestive heart failure on December 13, 1971 in Houston, Texas.



Stephanie Cutler
Embry-Riddle
Aeronautical University



James Pembridge
Embry-Riddle
Aeronautical University



Matthew Verleger
Embry-Riddle
Aeronautical University

Frontiers in Education Conference Helen Plants Award Best Nontraditional Session at FIE 2013

The Lord of PhD: Fellowship of the Dissertation; A Guide to the Engineering PhD

Stephanie Cutler, James Pembridge, Matthew Verleger, Lauren Thomas, FIE 2013, Session Number S2A

Stephanie Cutler is a Research Specialist with the Rothwell Center for Teaching and Learning Excellence for Embry-Riddle Aeronautical University's Worldwide campus. Dr. Cutler works as a faculty development facilitator aiding faculty in creating inquiry-based learning activities for their classrooms. Her teaching aligns with her research interests focusing on faculty development and integrating research into the classroom stemming from her dissertation research investigating faculty members' decisions about using Research-Based Instructional Strategies (RBIS) when teaching in the statics classroom. Dr. Cutler also enjoys watching all three *Lord of the Rings* movies back-to-back and has greatly enjoyed discovering the connections between this source of entertainment and her professional activities. Dr. Cutler has been a member of the American Society for Engineering Education (ASEE) since 2009. She was also a founding member of the Graduate Engineering Education Consortium of Students (GEECS).

James J. Pembridge is an Assistant Professor of Engineering Fundamentals at Embry-Riddle Aeronautical University in Daytona Beach, Florida. His research and work in the classroom focus on exploring models and theories from multiple disciplines that can promote the innovation cycle of educational practice and research (as described by Jamieson & Lohmann, 2009). His research has led to the development of a model of mentoring as pedagogical practice in project-based courses, especially in senior design courses. Pembridge is currently working on implementing a web-based peer-review process, along with his colleagues Yosef Allam and Lisa Davids, which will encourage the diffusion of evidence-based instructional strategies and the modeling of pedagogical change in STEM classrooms. His application of education and engineering education research in his classroom has provided him the opportunity to attend the 2013 NAE Frontiers of Engineering Education symposium as well as provide his first-year engineering students experiences with service learning, working on design projects local to the Daytona Beach community. Pembridge is active in the engineering education community, participating in several ASEE divisions and serving as a co-chair for ERM division's Apprentice Faculty Grant.

Matthew Verleger is an Assistant Professor of Engineering Fundamentals at Embry-Riddle Aeronautical University in Daytona Beach, Florida. His research interests are focused on using action research methodologies to develop immediate, measurable improvements in classroom instruction and the use of Model-Eliciting Activities (MEAs) in teaching students about engineering problem solving. Dr. Verleger is an active member of the ERM division, having served on the nomination committee in 2013 and 2012, interim member of the Helen Plants Award Committee in 2011, and an at-large director in charge of Monolith User Testing in 2010-2011. He is also on the professional advisory board for the ASEE Student Division. He also serves as the developer and site manager



Lauren Thomas
University of North
Carolina at Chapel Hill

for the Model-Eliciting Activities Learning System (MEALearning.com), a site designed for implementing, managing, and researching MEAs in large classes.

Lauren D. Thomas, PhD is an alternative-academic who aims to improve STEM education through research and practice. Lauren's graduate research explored the identity-trajectory of graduate students and early career academics. Her research interests also include non-profit organizations and STEM education policy. As a graduate student, Lauren was also the chairperson for the Graduate Engineering Education Consortium for Students, GEECS. Dr. Thomas is an involved member of the American Society of Engineering Education, ERM division.

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 A. Eschenbach, Alisha A. Waller, Eileen M. Cashman, and Monica
J. Bruning
- '05 Ruth A. Streveler
- '06 Ruth A. Streveler, Karl A. Smith, and Ronald L. Miller
- '08 Maura Borrego, Lynita Newswander, and Lisa McNair
- '09 Lisa C. Benson, Sherrill B. Biggers, William F. Moss, Matthew Ohland,
Marisa K. Orr, and Scott D. Schiff
- '10 Russell Korte and Karl A. Smith
- '11 Mark Somerville, Dave Goldberg, Sherra E. Kerns, and Russell Korte
- '12 Şenay Purzer and Jonathan C. Hilpert
- '13 Lynn Andrea Stein, and Caitrin Lynch

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).



Cynthia Finelli
University of Michigan

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

Frontiers in Education Conference Ronald J. Schmitz Award

For outstanding service to the Frontiers in Education Conference

Dr. Cynthia Finelli earned B.S.E.E., M.S.E.E., and Ph.D. degrees from the University of Michigan (U-M) in 1988, 1989, and 1993, respectively. She began her career at Kettering University where she was the Richard L. Terrell Professor of Excellence in Teaching, founding director of the Center for Excellence in Teaching and Learning, and associate professor of electrical engineering prior to joining U-M in 2003. Dr. Finelli currently serves as Director of the Center for Research and Learning in Engineering and Research Associate Professor in the College of Engineering at U-M.

In her present roles, Dr. Finelli consults with administrators, faculty, staff, and graduate students; offers workshops and seminars on teaching and learning; and supports college-wide initiatives in engineering education. In addition, she actively pursues research in engineering education at the U-M and assists other faculty in their scholarly endeavors. She is PI on several research projects, including (1) a multi-university collaborative project to identify strategies to lower student resistance to faculty's use of active learning techniques; (2) a multi-institution project to develop a practical instrument to assess students' ethical development and, thereby, to study the impact of individual ethics initiatives; and (3) a project to promote substantive and sustained teaching practices to improve student success and support a diverse student body in engineering at U-M. She also leads an international effort to develop and refine a taxonomy (i.e., a keyword outline) for the field of engineering education. The taxonomy is designed to be used by researchers, educators, funding agencies, journal editors, and others in the broad community.

Dr. Finelli also provides national leadership in engineering education research. She is Associate Editor for the *IEEE Transactions on Engineering Education*, is past chair of the Educational Research and Methods Division of American Society of Engineering Education (2007 – 2009), and has served as program co-chair for both the 2003 Frontiers in Education Conference and the 2006 Annual ASEE Conference. She also is a Fellow Member of ASEE.

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.



Raghunath
Shevgaonkar
I.I.T. Deli

Past Recipients

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

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

For educational leadership, inspirational teaching and research, and for developing books, videos and web courses in electromagnetics and fiber optic communication.

Professor Raghunath K Shevgaonkar is the Director of IIT Delhi and Fellow of IEEE. He received a B.E. in Electrical Engineering with a Gold Medal from Jiwaji University, Gwalior. After receiving his M.Tech. from IIT Kanpur, he joined the Indian Institute of Astrophysics/Raman Research Institute, Bangalore. He received a Ph.D. on Astronomical Image Restoration from IIT Bombay and was a Faculty Research Associate at University of Maryland. He is a passionate academician and researcher who has provided dynamic leadership in Engineering Education in India for more than three decades. He received the "IEEE Undergraduate Teaching Award 2011" and "Excellence in Teaching Award 2004" of IIT Bombay.

Professor Shevgaonkar has occupied many academic and administrative positions: Deputy Director, Dean of Students Affairs, Dean of Resource Mobilization, Head of the Department of Electrical Engineering, Head of Centre for Distance Engineering Education program, etc. at IIT Bombay. Presently he is the Director of I.I.T. Delhi, the top ranked institution in the country. He was the Vice-Chancellor of University of Pune, one of the largest universities in India where he established a unique industry sponsored technology department to carry out industry oriented research. For his contributions to higher education, he received the "Top Management Consortium Award-2010" for Excellence in Education, "Dewang Mehta Business School Award 2010" and "National Education Leadership Award 2012" by Headlines TODAY for Outstanding Contribution to Education.

He is the author of an undergraduate text book, *Electromagnetic Waves* (McGraw-Hill Education India, 2005), which is in wide use across India and also in other countries. Recognizing that many colleges and universities in India have inadequate number of quality faculty, he pioneered the activity of e-education in India. He is the Principal National Coordinator for "Electronics and Telecommunication" under the *National Project on Technology Enhanced Learning* (NPTEL) of the Government of India. He led the e-education activities "from the front" by personally developing video and web-based courses which are also available on YouTube. He is the Chairman of the UG Curriculum Committee of the All India Council for Technical Education (AICTE), the apex body governing engineering education in India. He was also the National Coordinator for the Post Graduate Curriculum development in Electronics under AICTE. He is a member of the Council of National Board of Accreditation, India. He was also the Convener and Member of the Apex Committee appointed by the Governor of Maharashtra State for Higher Education Reforms in Maharashtra, India.

Professor Shevgaonkar's research areas are radio astronomy, electromagnetics, optical communication and photonics, and image restoration. He played a lead role in analysis, design and commissioning of the Decameter Radio Telescope at Gauribidnur, India (a unique low frequency radio telescope in the world), and made significant contributions to low frequency radio astronomy. Later while working with the world's largest radio telescope, the Very Large Array (VLA) at New Mexico, USA, he developed, for the first time, a three dimensional model of the solar active regions with multi-frequency microwave observations. His

research of solar flares provided clear evidence of emergence of magnetic loops and magnetic re-connections in the pre-flare phase. In the area of Optical Communication and Electromagnetics, he proposed a generalized and systematic approach for designing optical fibers with a variety of dispersion characteristics. For his work in fiber optics, he received the IETE COET-94 Award for “outstanding contributions in opto-electronics.”

Professor Shevgaonkar is also a Fellow of Indian National Academy of Engineering, Fellow of National Academy of Science, Fellow of Institution of Electronics and Telecommunication Engineers, Fellow of Institution of Engineers, Fellow of Optical Society of India, and Fellow of Maharashtra Academy of Science. He was Technical Chair for the International Conference on Photonics 2002 and Hon. Editor of IETE Special Issue on “Next Generation Networks.”

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.



James McLurkin
Rice University



Joshua Rykowski
United States
Military Academy



Meagan John

IEEE Transactions on Education Best Paper Award

Using Multi-Robot Systems for Engineering Education: Teaching and Outreach with Large Numbers of an Advanced, Low-Cost Robot,” James McLurkin, Joshua Rykowski, Meagan John, Quillan Kaseman, and Andrew J. Lynch, vol. 56, no.1, pp. 24-33

James McLurkin is an Assistant Professor at Rice University in the Department of Computer Science, and director of the Multi-Robot Systems Lab. Current projects include using distributed computational geometry for multi-robot configuration estimation and control, and defining complexity metrics that quantify the relationships between algorithm execution time, inter-robot communication bandwidth, and robot speed. Previous positions include lead research scientist at iRobot corporation, where McLurkin was the manager of the DARPA-funded Swarm project. Results included the design and construction of 112 robots and distributed configuration control algorithms, including robust software to search indoor environments. He holds a S.B. in Electrical Engineering with a Minor in Mechanical Engineering from M.I.T., a M.S. in Electrical Engineering from University of California, Berkeley, and a S.M. and Ph.D. in Computer Science from M.I.T.

Joshua B. Rykowski received the B.S. degree in Electrical Engineering from the United States Military Academy, in 2004. He received the M.S. degree in Computer Science from Rice University, in 2011. He is a United States Army telecommunications officer and has served on active duty continuously since 2004. From 2004 to 2008 he served as a combat engineer platoon leader at Fort Bragg, North Carolina. He was designated as a telecommunications officer in 2008 and then attended Rice University and attained his M.S. in Computer Science. His follow on assignment was as an Instructor and Assistant Professor in the Department of Electrical Engineering and Computer Science at the United States Military Academy from 2011 to 2014. His primary research interests include multi-robot systems, state estimation and resource constrained networking.

Meagan John is a graduate of Rice University with a BS in Computer Science. She is currently working at TripAdvisor as a Software Engineer.

Quillan Kaseman, as a student, participated as an undergraduate research scholar in Professor McLurkin’s Multi Systems Laboratory at Rice University.

Andrew J Lynch received his BSE degree in electrical engineering from the University of Texas, and his MS degrees in mechanical engineering and in computer science from Rice University in 2010 and 2011, respectively. He is with Sparx Engineering, Manvel, TX, where his main interests are in robotics and embedded systems development.

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



Danilo Garbi Zutin
Carinthia University of
Applied Sciences

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

For Outstanding Achievements in the Organization and Administration of IEEE Conferences

Danilo G. Zutin is currently Assistant Professor at the department of Engineering & IT at the Carinthia University of Applied Sciences, Austria and a PhD candidate at Technical University of Ilmenau, Germany. He holds a degree in electrical engineering at the State University of Sao Paulo (UNESP), Brazil, and obtained his Master degree in Systems Design (specialization in Remote Systems) at the Carinthia University of Applied Sciences in Villach, Austria. His research interests are in the field of remote engineering, online labs, remote control of devices and software development for online labs. Danilo Garbi Zutin is currently a senior Researcher and team member of the Center of Competence in Online Laboratories and Open Learning (CCOL) at the Carinthia University of Applied Sciences (CUAS), Villach, Austria, where he has been engaged in projects for the development of online laboratories.

In January 2010 Danilo Garbi Zutin was appointed Secretary General of the International Association of Online Engineering and in the following year Secretary General of IGIP (International Society for Engineering Education) Danilo is author or co-author of more than 30 scientific papers published in international journals, magazines and conferences. Most of these papers are in the field of online laboratories and issues associated with their dissemination and usage.

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

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. Professor Jones also serves the IEEE as a member of the IEEE Committee on Engineering Accreditation Activities. Dr. Jones is University Professor and Associate Chair, emeritus, Department of Electrical and Computer Engineering, Iowa State University. Prior to joining Iowa State in 1966, he was an Assistant Professor at the University of Illinois from 1962-66. He received his PhD in 1962 from the University of Illinois; the DIC in 1956 from Imperial College of Science and Technology, 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; and the Grinter Distinguished Service Award from ABET in 2001. Some of his students founded a scholarship for Electrical and Computer Engineering students at Iowa State University in his honor.



Jill Nelson
George Mason
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

IEEE Education Society Mac Van Valkenburg Early Career Teaching Award

For leadership in establishing sustainable communities of engineering education innovation and outstanding classroom teaching

Jill Nelson is an Associate Professor in the Department of Electrical and Computer Engineering at George Mason University, where she has been a faculty member since 2005. She earned a BS in Electrical Engineering and a BA in Economics from Rice University in 1998. She attended the University of Illinois at Urbana-Champaign for graduate study, earning an MS and PhD in Electrical Engineering in 2001 and 2005, respectively.

Dr. Nelson's teaching interests include signals and systems, continuous and discrete-time signal processing, communication theory, and advanced algorithms for adaptive signal processing. She incorporates interactive pedagogical approaches such as group problem-solving and reflection in her courses and emphasizes the importance of connecting course material with real-world problems. Beyond the classroom, Dr. Nelson is a principal investigator for two National Science Foundation engineering education research projects focusing on broadening the use of innovative teaching practices in university science, math, and engineering courses. The aim of these projects is to use small, long-term teaching development groups to motivate and support faculty in moving toward more student-centered instruction. In past engineering education research, she has studied how students transfer mathematical knowledge to engineering problems, as well as how students' conceptual understanding of engineering material relates to their interest in and motivation for the field.

Dr. Nelson's disciplinary research focus is in statistical signal processing, specifically detection and estimation for applications in target tracking, physical layer communications, and music signal processing. Her work on target detection and tracking is funded by the Office of Naval Research. She is a 2010 recipient of the NSF CAREER Award; the educational outreach element of her CAREER plan includes developing college-level problem-based learning curriculum in probability and random processes.

Dr. Nelson's teaching accomplishments have been recognized with the George Mason University Teaching Excellence Award in 2014, as well as the Volgenau School of Engineering Outstanding Teaching Award in 2011. She was also selected to participate in the 2012 National Academy of Engineering Frontiers of Engineering Education Symposium. Since 2006, Dr. Nelson has been the faculty advisor of the IEEE Student Chapter at George Mason University. She is a member of Phi Beta Kappa, Tau Beta Pi, Eta Kappa Nu, ASEE, and the IEEE Signal Processing, Communications, and Education Societies.



Liang-Bi Chen
National Sun Yat-Sen
University

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

IEEE Education Society Student Leadership Award

For student team leadership resulting in national and international awards, and for serving as a section leader and guest Editor-in-Chief for IEEE ITEE

Liang-Bi Chen received B.S. and M.S. degrees in Electronic Engineering from the National Kaohsiung University of Applied Sciences, Kaohsiung, Taiwan, in 2001 and 2003, respectively, and is a Ph.D. Candidate in the Department of Computer Science and Engineering at the National Sun Yat-Sen University, Kaohsiung, Taiwan. From 2004 to 2011, he also served as a teaching and research assistant at the National Sun Yat-Sen University, Kaohsiung, Taiwan.

From August 2008 to September 2008, he had an internship of Department of Computer Science at the National University of Singapore, Singapore. He was also a visiting researcher in the Department of Computer Science at the University of California, Irvine, CA, U.S.A. during September 2008 to August 2009 and in the Department of Computer Science and Engineering at the Waseda University, Tokyo, Japan between July 2010 and August 2010, respectively. He has published more than 60 papers in national/international journals and conferences. He led many student teams to win more than 20 awards in national/international contests. Since 2013, he served as a section editor leader and a guest Editor-in-Chief for the *IEEE Technology and Engineering Education (ITEE)*. He also served as a TPC member, an IPC member or a reviewer for many IEEE/ACM international conferences and journals.

Since 2004, he served as an adjunct lecturer at the National Sun Yat-Sen University, the National Taichung University of Science and Technology Kaohsiung Campus, the National Pingtung University of Science and Technology, the National Pingtung Institute of Commerce, the Tajen University, the Kun Shan University, the Shih-Chien University Kaohsiung Campus, and the Meiho University, in Taiwan. From 2004, he also worked as an adjunct teacher at the Kaohsiung Municipal Kaohsiung Industrial High School, the Kaohsiung Municipal Kaohsiung High School of Commerce, and the Kaohsiung Municipal Chung-Cheng Industrial High School in Kaohsiung, Taiwan.

Since May 2012, he joined BXB Electronics Co., Ltd., Kaohsiung, Taiwan, as a R&D Engineer. Since May 2013 he was transferred to executive assistant to Vice President, BXB Electronics Co., Ltd., Kaohsiung, Taiwan. His research interests include VLSI design, power/performance analysis for embedded mobile applications and devices, power-aware embedded systems design, low-power systems design, digital audio signal processing, engineering education, project-based learning education, SoC/NoC Verification, and system-level design space exploration.