

2007 Frontiers in Education Conference

Awards Presentations

Thursday, October 11 Terman/Rigas Awards Luncheon
11:45 a.m.–1:15 p.m.

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

Friday, October 12 Plenary Address and Awards Presentations
8:00 a.m.–9:30 a.m.

Frontiers in Education (FIE) Conference Awards

FIE 2006 Benjamin J. Dasher Best Paper Award
FIE 2006 Helen Plants Award
FIE Ronald J. Schmitz Award

ASEE Educational Research and Methods Division
Distinguished Service Award

Friday, October 12 IEEE EdSoc Gala and Awards Presentations
7:30 p.m.–10:00 p.m.

IEEE Education Society

Achievement Award
Best *Transactions* Paper Award
Chapter Achievement Award
Distinguished Chapter Leadership Award
Edwin C. Jones, Jr. Meritorious Service Award
Mac Van Valkenburg Early Career Teaching Award

Award Selection Committee Chairs

Frontiers in Education Conference

Benjamin J. Dasher Best Paper Award	Tony Mitchell
Helen Plants Award	Jennifer Kadlowec
Ronald J. Schmitz Award	Jane Chu Prey

ASEE Educational Research and Methods Division

Distinguished Service Award	Cynthia Finelli
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ASEE Electrical and Computer Engineering Division

Hewlett-Packard Frederick Emmons Terman Award	Vijay K. Madiseti
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IEEE Education Society

Achievement Award	Lyle D. Feisel
Best <i>Transactions</i> Paper Award	David A. Conner
Chapter Achievement Award	Trond Clausen
Distinguished Chapter Leadership Award	Robert A. Reilly
Edwin C. Jones, Jr. Meritorious Service Award	Edwin C. Jones, Jr.
Hewlett-Packard/Harriet B. Rigas Award	Patricia D. Daniels
Mac Van Valkenburg Early Career Teaching Award	S. Hossein Mousavinezhad



Donna Riley
Associate Professor
Picker Engineering Program
Smith College



Gina-Louise Sciarra
Doctoral Candidate
Department of Sociology
CUNY Graduate Center

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

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award

Presented by: Joseph L. A. Hughes

“ ‘You’re All a Bunch of Fucking Feminists’: Addressing the Perceived Conflict Between Gender and Professional Identities Using the Montreal Massacre”, FIE 2006, Session S2G.

Donna Riley is a founding faculty member in Smith College’s engineering program, where she teaches thermodynamics, ethics, and global development engineering. She received her Ph.D. in engineering and public policy from Carnegie Mellon University and her B.S.E. in chemical engineering from Princeton University. Her technical research focuses on risk assessment and communication for chemical consumer products. In 2005, Dr. Riley received a NSF CAREER award for implementing and assessing pedagogies of liberation, based on the work of Paulo Freire, bell hooks, and others, in engineering education. Aspects of these pedagogies that are operationalized in her classroom include connecting course material to student experience, emphasizing students as authorities in the classroom, integrating ethics and policy considerations in the context of social justice, problematizing science as objectivity, and de-centering western (and male) civilization. Her work capitalizes on the intimate, creative and collaborative environment at Smith, where intentional learners grow into critical thinkers and reflective actors.

Gina-Louise Sciarra is a doctoral candidate in sociology at City University of New York’s Graduate Center. She is a primary research assistant on a five-year panel study of undergraduate engineering that is funded by the National Science Foundation. She has experience with qualitative and quantitative research methods, with particular expertise conducting interviews and observations, as well as coding ethnographic data.

Her areas of concentration are the social construction of identity, the sociology of professions, and stratification and inequality in higher education. Her particular research interest is the effect of competing gender, racial and professional identities on academic and life decisions of engineering students. She holds a B.A. in English and a minor in Italian from Smith College.

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| '83 Davood Tashayyod, Banu Onaral,
and James M. Trosino | '96 Val D. Hawks |
| '84 Bill V. Koen | '97 Edwin Kashy, Michael Thoennessen,
Yihjia Tsai, Nancy E. Davis, and
Sheryl L. Wolfe |
| '85 Bill V. Koen | '98 A.B. Carlson, W.C. Jennings, and
P.M. Schoch |
| '86 Richard S. Culver | '99 Wayne Burleson, Aura Ganz, and
Ian Harris |
| '87 David A. Conner, David G. Green,
Thomas C. Jannett, James R. Jones,
M.G. Rekoff, Jr., Dennis G. Smith,
and Gregg L. Vaughn | '00 David W. Petr |
| '88 Richard M. Felder | '02 Zeynep Dilli, Neil Goldsman,
Lee Harper, Steven I. Marcus, and
Janet A. Schmidt |
| '89 Richard C. Compton and Robert York | '03 Glenn W. Ellis, Gail E. Scordilis,
and Carla M. Cooke |
| '90 Cindy A. Greenwood | '04 Matthew W. Ohland, Guili Zhang,
Brian Thorndyke, and
Timothy J. Anderson |
| '91 Robert Whelchel | '05 Gregory A. Moses and Michael Litzkow |
| '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 | |



Ruth A. Strevler
Assistant Professor
Department of Engineering
Education
Purdue University



Karl A. Smith
Cooperative Learning Professor
Department of Engineering
Education
Purdue University

Frontiers in Education Conference Helen Plants Award

Presented by: Joseph L. A. Hughes

***Best Nontraditional Session at FIE 2006: Session T2A
“What Is Rigorous Research in Engineering Education?”***

Ruth Strevler recently joined Purdue University’s new Department of Engineering Education after 12 years at the Colorado School of Mines, where she was the founding Director of the Center for Engineering Education. She is co-PI on several NSF-funded projects and is currently Acting Director for the NSF-funded Center for the Advancement of Engineering Education, a multi-campus project investigating the educational experience of engineering students. She received her B.A. in biology from Indiana University–Bloomington in 1975, an M.S. in zoology from the Ohio State University, Columbus, in 1977, and a Ph.D. in educational psychology from the University of Hawaii at Manoa in 1993. Her primary research interests are investigating students’ understanding of difficult concepts in science and engineering, and training engineering faculty to conduct rigorous research in engineering education.

Karl A. Smith is Cooperative Learning Professor of Engineering Education, Department of Engineering Education, and Fellow, Discovery Learning Center at Purdue University. Dr. Smith has been at the University of Minnesota since 1972 and is in phased retirement as Morse-Alumni Distinguished Teaching Professor and Professor of Civil Engineering at the University of Minnesota.

Dr. Smith’s research and development interests include building rigorous research capacity in engineering education; the role of cooperation in learning and design; problem formulation, modeling, and knowledge engineering; and project and knowledge management and leadership. He is currently co-PI on an NSF-CLT Center for the Advancement of Engineering Education (CAEE) and co-PI on a NSF-CCLI-ND Rigorous Research in Engineering Education: Cultivating a Community of Practice. He has worked with thousands of faculty all over the world on pedagogies of engagement, especially cooperative learning, problem-based learning, and constructive controversy. He has co-written 12 books, including *Cooperative Learning: Increasing College Faculty Instructional Productivity*; *Strategies for Energizing Large Classes: From Small Groups to Learning Communities*; and *Teamwork and Project Management, 3rd Ed.* His bachelor’s and master’s degrees are in metallurgical engineering from Michigan Technological University, and his Ph.D. is in educational psychology from the University of Minnesota.



Ronald L. Miller
Professor
Chemical Engineering
Colorado School of Mines

Frontiers in Education Conference Helen Plants Award (continued)

Dr. Ronald L. Miller is Professor of Chemical Engineering and Director of the Center for Engineering Education at the Colorado School of Mines, where he has taught chemical engineering and interdisciplinary courses and conducted engineering education research for the past 20 years. Dr. Miller has received three university-wide teaching awards and has held a Jenni teaching fellowship at CSM. He has received grant awards for education research from the National Science Foundation, the U.S. Department of Education FIPSE program, the National Endowment for the Humanities, and the Colorado Commission on Higher Education and has published widely in the engineering education literature. He won the Wickenden Award from the American Society for Engineering Education for best paper published in the Journal of Engineering Education during 2005.

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 A. Yoder
- '96 Alisha A. Waller,
Edward R. Doering, and
Mark A. Yoder
- '97 Karl A. Smith,
Elizabeth A. Eschenbach, and James D.
Jones
- '98 Alice Agogino
- '99 Melinda Picket-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



Joseph L. A. Hughes
Professor and Senior Associate
Chair
Electrical and Computer
Engineering
Georgia Institute of Technology

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

Frontiers in Education Conference Ronald J. Schmitz Award

Presented By: Jane Chu Prey

“For outstanding service to the Frontiers in Education Conference.”

Joseph L. A. Hughes received a BSEE degree from the Illinois Institute of Technology, Chicago, in 1979 and the MSEE and Ph.D. degrees from Stanford University, in 1980 and 1986, respectively. He is currently Professor and Senior Associate Chair in the School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta. Dr. Hughes was General Chair for the 2004 Frontiers in Education Conference (Savannah) and Finance Chair for FIE 1995 (Atlanta). He is President of the IEEE Education Society, having served since 2001 as an at-large member of the administrative committee and as a society officer. Dr. Hughes was Chair of the ECE Division of ASEE in 2001–02, following terms as Secretary/Treasurer and Vice-Chair/Program Chair. He is an IEEE alternate representative on the Engineering Accreditation Commission of ABET and a member of the IEEE Committee on Engineering Accreditation Activities.

Dr. Hughes was elected a Fellow of IEEE in 2007, “for contributions to engineering education program development, assessment, and accreditation activities.” He is a Fellow of ASEE and received the 2005 ECE Distinguished Educator Award from the ECE Division of ASEE. He received an IEEE Computer Society Outstanding Contribution Award in December 2005, “for the establishment of Computing Curricula 2005 for Computer Engineering.” Dr. Hughes is a member of Eta Kappa Nu, Tau Beta Pi, and Sigma Xi.



Daniel J. Moore

Associate Dean of the Faculty
and Professor
Electrical and Computer
Engineering
Rose-Hulman Institute of
Technology

Past Recipients

'95 Wallace S. Venable
'96 James E. Stice
'98 Billy V. Koen
Alisha A. Waller
'99 John C. Lindenlaub
'00 Richard S. Culver
'01 Charles F. Yokomoto
'02 Karl A. Smith
'03 Michael J. Pavelich
'04 Larry G. Richards
'05 Daniel D. Budny
'06 Eric P. Soulsby

ASEE ERM Division Distinguished Service Award

Presented by: Cynthia Finelli

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

Daniel J. Moore is the Associate Dean of the faculty, Director of Graduate Studies, and Professor in the Electrical and Computer Engineering Department at Rose-Hulman Institute of Technology. He received his Ph.D. in electrical engineering from North Carolina State University in 1989 in the area of compound semiconductors growth and device fabrication. He joined the faculty at Rose-Hulman in 1995 as an Associate Professor of Electrical and Computer Engineering. Prior to joining the faculty at Rose-Hulman he was Assistant Professor at Virginia Tech and an instructor at North Carolina State University. After completing his M.S. in electrical engineering in 1976, he joined the DuPont Corporation, where he worked in various technical, design, and supervisory positions before returning to obtain his Ph.D.

Dr. Moore directed the Electrical and Computer Department's senior design program for several years and currently oversees externally sponsored multidisciplinary graduate and undergraduate projects as well as international project teams and collaborations. His current research interests include engineering design methodologies, student learning styles, active/cooperative education and the integration of entrepreneurial concepts and practices throughout the curriculum.

Dr. Moore was the 2001–2003 Chair of the Educational Research Methods (ERM) Division of ASEE, is a senior member of IEEE, and an ABET program evaluator. He was FIE program co-chair for FIE 1998, 2001, and 2004. He is currently serving a second term as one of the ERM representatives on the FIE steering committee. He was recently appointed as an associate editor of the online *Journal of Advances in Engineering Education* (AEE), an ASEE publication.



Russel Jacob (Jake) Baker
Professor
Electrical and Computer
Engineering
Boise State 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
'00 Sergio Verdu
'01 Zoya Popovic
'02 Theodore S. Rappaport
'03 Wayne Wolf
'04 Keshab K. Parhi
'05 Ali H. Sayed
'06 Vijay K. Madiseti

ASEE ECE Division Hewlett-Packard Frederick Emmons Terman Award

Presented by: Wayne C. Johnson

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

Russel Jacob (Jake) Baker was born in Ogden, Utah, on October 5, 1964. He received his B.S. and M.S. degrees in electrical engineering from the University of Nevada, Las Vegas, and a Ph.D. degree in electrical engineering from the University of Nevada, Reno.

From 1981–1987, he was in the U.S. Marine Corps Reserves. From 1985–1993, he worked for E. G. & G. Energy Measurements and the Lawrence Livermore National Laboratory designing nuclear diagnostic instrumentation for underground nuclear weapons tests at the Nevada test site. During this time, he designed over 30 electronic and electro-optic instruments including high-speed (750 Mb/s) fiber-optic receiver/transmitters, PLLs, frame- and bit-syncs, data converters, streak-camera sweep circuits, micro-channel plate gating circuits, and analog oscilloscope electronics. From 1993–2000, he was a faculty member in the Department of Electrical Engineering at the University of Idaho. In 2000, he joined a new electrical and computer engineering program at Boise State University where he was Department Chair from 2004 to 2007. Also, since 1993, he has consulted for various companies and laboratories including Micron Technology, Amkor Wafer Fabrication Services, Tower Semiconductor, Rendition, Lawrence Berkeley Laboratory, and the Tower ASIC Design Center.

Dr. Baker holds over 200 granted or pending patents in integrated circuit design. He is a member of the electrical engineering honor society Eta Kappa Nu, a licensed Professional Engineer, and the author/coauthor of the books: *CMOS: Circuit Design, Layout, and Simulation*, *CMOS: Mixed-Signal Circuit Design*, and *DRAM Circuit Design: Fundamental and High-Speed Topics*. His research interests are in the areas of CMOS mixed-signal integrated circuit design and the design of memory in new and emerging fabrication technologies. He was also a co-recipient of the 2000 Prize Paper Award of the IEEE Power Electronics Society.

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

About the Terman Award

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

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



About Frederick Emmons Terman

Frederick Emmons Terman received his A.B. degree in chemistry in 1920, the degree of Engineer in electrical engineering in 1922 from Stanford University, and his Sc.D. degree in electrical engineering in 1924 from Massachusetts Institute of Technology. From 1925–1965 he served as Instructor, then Professor of Electrical Engineering, Executive Head of 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.



Sarah A. Rajala
James Worth Bagley Chair and
Department Head
Electrical and Computer
Engineering
Mississippi State University

Past Recipients

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

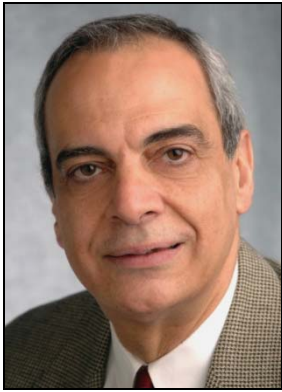
IEEE Education Society Achievement Award

Presented by: Joseph L. A. Hughes

“For contributions to engineering education through excellence in teaching, research, and administration and for leadership and service in professional societies.”

Sarah A. Rajala holds the James Worth Bagley Chair and serves as head of the Department of Electrical and Computer Engineering at Mississippi State University. Previously, she was a professor and served as Associate Dean for Research and Graduate Programs, Associate Dean for Academic Affairs, and Director of the Industry/University Cooperative Research Center for Advanced Computing and Communication in the College of Engineering at North Carolina State University. During her career, she has conducted research on the analysis and process of images and image sequences with application to the areas of color imaging, image coding/compression, motion estimation, and target acquisition and tracking and made numerous contributions to engineering education. She has authored and co-authored over 100 papers in these areas and has had contributions published in 13 books.

Dr. Rajala has received numerous awards for her research and professional contributions, including the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring in 2000, Fellow of the Institute of Electrical and Electronic Engineers in 2001 and Fellow of the American Society for Engineering Education in 2007 for contributions to engineering education. She has an extensive record of leadership in professional and volunteer organizations, including the ASEE, IEEE, Phi Kappa Phi, and Sigma Xi. She is currently President-Elect of the American Society of Engineering Education.



Marwan A. Simaan
Bell of PA/Bell Atlantic
Professor
Electrical and Computer
Engineering
University of Pittsburgh

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. Yeagan
- '98 Ted E. Batchman
- '99 Lyle D. Feisel
- '00 Irene C. Peden
- '01 Donald E. Kirk
Eli Fromm
- '02 Burks Oakley II
- '03 Frank Barnes
Delores Etter
- '04 William E. Sayle II
- '05 H. Vincent Poor
- '06 George D. Peterson

IEEE Education Society Achievement Award

Presented by: Joseph L. A. Hughes

“For contributions to engineering education through excellence in teaching, administration, interdisciplinary research and professional activities on an international scale.”

Marwan A. Simaan is the Bell of PA/Bell Atlantic Professor of Electrical and Computer Engineering at the University of Pittsburgh. He received the Ph.D. in electrical engineering from the University of Illinois, Urbana-Champaign in 1972. He joined the University of Pittsburgh in 1976 and served as Chair of its Electrical Engineering Department from 1991–1998. Over the past 35 years, his research and teaching activities have been mainly in the areas of control, signal processing, telecommunication networks, and engineering education. He has worked on a wide range of interdisciplinary projects with students and collaborators from a variety of disciplines including biomedical, mechanical, materials, and manufacturing engineering as well as physics, mathematics, geophysics, computer science, economics, and political science. His research has been supported by NSF, DARPA, AFOSR, ONR, NIH and a variety of industrial sources including Gulf Oil, Alcoa, Westinghouse and others. He has edited/co-edited four books and authored/co-authored more than 300 publications, 24 industry technical reports, and two patents (one pending).

Dr. Simaan is a Fellow of IEEE, ASEE, AAAS and a member of the National Academy of Engineering (NAE). He currently serves or has served on numerous professional committees/boards including the IEEE Proceedings Editorial Board, IEEE Fellow Committee, IEEE Pub Board, IEEE Prize Papers/Graduate Fellowships Committee, the AACC Education and Bellman Awards Committees, and others. He served as Program Evaluator for ABET (1993–99 and 2001–07). Dr. Simaan and his students received three best paper awards from IEEE and Sigma-Xi. At the University of Pittsburgh, he received numerous teaching awards from Eta Kappa Nu and IEEE student chapters as well as the Beitle-Veltri Memorial Award for excellence in teaching. In 1995 he was named a Distinguished Alumnus of the ECE Department at the University of Illinois. Dr. Simaan is a registered Professional Engineer in the Commonwealth of Pennsylvania.



Jason A. Day
Ph.D. Candidate
Graphics, Visualization, and
Usability Center
Georgia Institute of Technology



James D. Foley
School of Interactive Computing
College of Computing
Georgia Institute of Technology

IEEE Education Society Best *Transactions* Paper Award

Presented by: Joseph L. A. Hughes

“Evaluating a Web Lecture Intervention in a Human-Computer Interaction Course,” IEEE Transactions on Education, Vol. 49, No. 4, November 2006, pp. 420–431.

Jason A. Day received a B.A. degree in computer science from DePauw University, Greencastle, Ind. in 2001. He is currently working towards a Ph.D. in human-centered computing at the College of Computing, Georgia Institute of Technology, Atlanta. His main areas of research are educational technology and human-computer interaction, focusing on blended learning approaches and multimedia learning. FROM SML-can we fix this spacing so it doesn't look funny?

James D. Foley joined Georgia Tech in 1991 as Founding Director of the Graphics, Visualization and Usability Center in the College of Computing. The Center was ranked number one in 1996 by *U.S. News and World Report* for graduate computer science work in graphics and user interaction. On leave from Georgia Tech from 1996–99, he was first Director of MERL - Mitsubishi Electric Research Laboratory and then CEO and Chair of Mitsubishi Electric Information Technology Center America.

He is co-author of three computer graphics texts and is a Fellow of AAAS, ACM and IEEE. He received ACM/SIGGRAPH's Lifetime Achievement Award for contributions to computer graphics in 1997 and ACM/SIGCHI's Lifetime Achievement Award in 2007. Dr. Foley was Chair (2001–2005) of the Computing Research Association.

Research interests include interactive computer graphics, information visualization, and educational technologies.

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

Spanish Chapter

Chair - Edmundo Tovar

Past Chair - Manuel Castro

Vice-Chair - Gabriel Díaz Orueta

Secretary - José Ángel Sánchez

Treasurer - Francisco Mur



Edmundo Tovar

Vice-Dean

Universidad Politécnica de
Madrid (Spain)



Manuel Castro

Professor

UNET (Madrid, Spain)

IEEE Education Society Chapter Achievement Award

Presented by: Joseph L. A. Hughes

“For the Chapter as an outstanding model of technical activities, membership services, and professional development in Spain and Latin America.”

The Spanish Chapter of the IEEE Education Society reports an impressive list of activities including three 2006 conferences and two 2006 technical meetings. In addition, the Chapter has taken initiatives to pull Latin America into IEEE Education Society activities, most notably through the establishment of the IEEE-RITA electronic journal. The Chapter also reports a substantial growth of members from 118 in 2004 to 167 in 2006. Finally, the Chapter has been clearly visible inside and outside the IEEE Education Society by presentations and papers in various venues, including the Frontiers in Education (FIE) conference. The Chapter is also represented by two members of the Administrative Committee of the Education Society.

Edmundo Tovar, computer engineering educator, has a Ph.D. (1994) and a bachelor's degree (1986) in computer engineering from the Universidad Politécnica de Madrid (UPM). He is Certified Software Development Professional (CSDP) from the IEEE Computer Society and he has worked for five years in private companies as a knowledge engineer and in public administration as a software engineer. He has been an advisor in quality assurance for several institutions and an expert evaluator in accreditation processes with the Spanish Agency for Quality Assessment and Accreditation, ANECA. He has been involved as a researcher in software quality management tasks in international projects since 1988, and educational projects, managing several of them in the context of the European Higher Education Area for the Spanish Education Ministry. He has served as Control Quality Unit Director, School of Computer Science, Universidad Politécnica de Madrid and currently is Vice-Dean for Quality and Strategic Planning in this school. He is an IEEE Senior Member, Chair of the Spanish Chapter and at-large member of the Administrative Committee of the IEEE Education Society.

Manuel Castro, an electrical and computer engineering educator in the Spanish University for Distance Education (UNED) has an industrial engineering degree and Ph.D. from the Industrial Engineering School of the Madrid Polytechnic University. His doctoral thesis received the Extraordinary Doctoral Award and the Viesgo Award. He works as researcher, coordinator and director in research projects, from solar system and advanced microprocessor system simulation to telematics and distance learning, acting as senior technical coordinator. He is now Professor and Director of the Department and was serving as UNED's Vice-Rector of New Technologies and other academic and management positions. He worked for five years for Digital Equipment Corporation as Senior System Engineer. He has published technical books and articles for journals and conferences as well as multimedia materials. He is a senior member of IEEE and member of the AdCom of the IEEE Education Society and founder and past-Chair of its Spanish chapter.

IEEE Education Society Chapter Achievement Award (continued)



Gabriel Díaz Orueta
Associate Professor
UNET (Madrid Spain)

Gabriel Díaz Orueta received his Ph.D. in physics in 1988 from the Solid State Physics Department at the UAM (Universidad Autónoma de Madrid), developing “ab-initio” techniques. From 1988–1996, he worked for Digital Equipment Corporation in Madrid in different support and education jobs. From 1996–1999, he worked for Global Knowledge, as training coordinator for different curricula, especially information security courses. In 2006, he founded his own company specializing in information security and communications training and consultancy. Since 2002, he has worked as a professor for the Spanish Distance University, UNED, teaching several courses, and investigating new e-learning methods and their security implications. He is author of various publications and several books in the fields of information security and electronic design. He has earned Microsoft, Compaq and Cisco information technology certificates and is a senior member of IEEE and ACM.



José Ángel Sánchez
Professor
IES Professional High School
(Talavera, Spain)

José Ángel Sánchez is Professor of Networking Computers and Factory Communications Systems in the Professional High School of Talavera de la Reina, Spain, has a telecommunications engineering degree from the Catalonia Polytechnic University, and has finished a full doctoral program in electric, electronic and control systems from the Spanish University for Distance Education (UNED). He is also University Expert in Informatic Applications to Management and Automation of Business and Factory by the Spanish University for Distance Education Foundation. He has published didactic books and tools for professional high schools on quality systems and Electronic CAD and presented multimedia materials at conferences and awards. In addition, he is a member of the Quality Committee in Education (ISO9001) to Quality High Schools Network of Castilla-La Mancha Education Department in Talavera de la Reina, where he also is Information and Communication Technologies Coordinator and Electric-Electronic Department Head. He is a senior member of IEEE and Founder and Secretary of its Spanish chapter.



Francisco Mur
Associate Professor
UNET (Madrid Spain)

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



IEEE Education Society Distinguished Chapter Leadership Award

Presented by: Joseph L. A. Hughes

“For exceptional contributions to the Society and for leadership in the development of chapters in South America.”

Carlos Rueda Artunduaga

Carlos Rueda Artunduaga

Manager, Web Department
Jorge Tadeo Lozano University
Bogota, Columbia



Oliver K. Ban
Senior Scientist
IBM Corporation

IEEE Education Society Distinguished Chapter Leadership Award

Presented by: Joseph L. A. Hughes

“For exceptional contributions to the Society and for leadership in the development of Chapters in China.”

Oliver K. Ban was born in Beijing, China as Keren Ban. He adopted an “American” name “Oliver” after a lot of confusing cases of being mistaken as a star female student in an otherwise all male engineering department.

Dr. Ban is a senior scientist at IBM Corporation in Austin and also serves as Chief Technologist in ShenZhen, IBM China, Texas. He is a senior member of IEEE, with a B.S and M.S in electrical engineering, a Ph.D. in computer science and a M.B.A. from University of Texas at Austin.

Dr. Ban has been working in the telecommunication and semiconductor industry for 15 years in such disciplines as computer graphic chip design, digital image processing algorithms development, microprocessor design, serial networking chip design, 3G wireless chipset design. Along the way, he has taken positions as design engineer, senior design engineer, principal engineer, senior consultant and senior scientist in a variety of companies, ranging from Integrated Information Technology, Sony Research Laboratories, to Synopsys Inc. and IBM Corporation. He has 24 patents under filing.

Dr. Ban is also an Adjunct Professor of Peking University, Tian Jin University, Sun Ye Shin University and Harbin University of Science and Technology.



IEEE Education Society

Edwin C. Jones, Jr.

Meritorious Service Award

Presented by: Joseph L. A. Hughes

“For exemplary service to and leadership of the Education Society, for contributions to engineering education, for educational innovation, for textbooks, and for guidance of the Frontiers in Education conference.”

David V. Kerns

Franklin and Mary Olin
Distinguished Professor of
Electrical and Computer
Engineering,
Olin College
Professor of Technology
Entrepreneurship,
Babson College

David V. Kerns, Jr. is the Franklin and Mary Olin Distinguished Professor of Electrical and Computer Engineering at Olin College, where he served as the Founding Provost and Chief Academic Officer of Olin College from 1999–2007. He recruited the founding faculty and academic staff at Olin College and led the development of the initial curricula and deployment of programs now recognized for their innovation. Previously, he held the Orrin Henry Ingram Distinguished Professorship in the Department of Electrical Engineering at Vanderbilt University, where he also chaired the department, directed the Management of Technology Program, and later served as Associate Dean and Chief Academic Officer of the School of Engineering. He has also served on the faculties of Bucknell, Auburn, and Florida State Universities and established research programs and educational laboratories at each school.

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

He was a member of the technical staff at Bell Telephone Laboratories and has co-founded several successful technology-based companies. In 1985, he co-invented a micromachined accelerometer, and his company produced one of the first commercial single-chip MEMS silicon accelerometers.

He is past-president of the IEEE Education Society and also served as the Society's Secretary and Vice-President. He served several terms on the FIE steering committee and was General Chair of FIE '92. He became Fellow of the IEEE in 1991 for “contributions to engineering education and research in microelectronics.” He is the author of over 100 technical papers and holds more than 15 patents. His interests include entrepreneurship and intellectual property, MEMS, analog circuit design and, particularly, innovation in engineering education. A recipient of the IEEE Millennium Award, he is the co-author of two successful textbooks: *Introduction to Electrical Engineering* and *Essentials of Electrical and Computer Engineering*, published by Prentice-Hall. He received his B.S., M.S., and Ph.D. degrees from Florida State University.



Bonnie Heck Ferri
Professor and Associate Chair for
Graduate Affairs
School of Electrical and
Computer Engineering
Georgia Institute of Technology

Past Recipients

'95 Denice D. Denton
'96 Karan L. Watson
'97 Patricia D. Daniels
'98 Delores M. Etter
'99 Sherra E. Kerns
'00 Leah Jamieson
'01 Valerie Taylor
'02 Nan Marie Jokors
'03 Joanne Bechta Dugan
'04 Jennifer L. Welch
'06 Eve A. Riskin

IEEE Education Society Hewlett-Packard/ Harriet B. Rigas Award

Presented by: Wayne C. Johnson

“Outstanding woman engineering educator in recognition of her contributions to the profession.”

Bonnie H. Ferri received a B.S. degree in electrical engineering from the University of Notre Dame in 1981, an M.S. degree in mechanical and aerospace engineering from Princeton University in 1984, and a Ph.D. degree in electrical engineering from Georgia Tech in 1988. She has been on the faculty of Georgia Tech since 1988, where she is currently Professor and Associate Chair for Graduate Affairs. She has also worked in industry for Honeywell Inc. as a design and test engineer.

Dr. Ferri has been very active in the IEEE Control Systems Society. She was elected twice to that society's Board of Governors, was the Program Chair for the American Control Conference, and was Chair of the Control System Society Technical Committee on Education. She has held the position of Associate Technical Editor for the *IEEE Transactions on Education* and for the *IEEE Control Systems Magazine*.

Dr. Ferri's research concentrates on embedded control systems, industrial control, and controls education. She has won several research awards, including the NSF Presidential Young Investigator Award and the 2004 Best Paper Award from the *IEEE Control Systems Magazine*. She has co-authored a junior-level textbook, written a number of papers on controls education, and is most recently active in developing portable experiments for lecture-based courses. She is very active in the recruitment and retention of women in engineering, including middle school, high school, undergraduate, and graduate-level activities. She has been selected by the ECE senior class for the Best Teacher Award and has received several other campus-wide awards for her teaching, mentoring, outreach, and leadership activities.



Susan C. Hagness
Professor
Electrical and Computer
Engineering
University of Wisconsin–
Madison

Past Recipients

'04 Parham Aarabi
'05 John R. Buck
'06 Lisa G. Huettel

IEEE Education Society Mac Van Valkenburg Early Career Teaching Award

Presented by: Joseph L.A. Hughes

“For demonstrating the benefits of a holistic approach to engineering education that emphasizes the human impact of the subject matter with a multifaceted teaching strategy to engage the whole student.”

Susan C. Hagness received a B.S. degree with highest honors and a Ph.D. degree in electrical engineering from Northwestern University, Evanston, Ill. in 1993 and 1998, respectively. Since August 1998, she has been with the Department of Electrical and Computer Engineering at the University of Wisconsin–Madison, where she currently holds the rank of Professor. She is also a faculty affiliate of the Department of Biomedical Engineering.

Dr. Hagness has received national and international recognitions for her research in the area of computational and experimental applied electromagnetics. While working toward the Ph.D. degree, she was a National Science Foundation Graduate Fellow and a Tau Beta Pi Spencer Fellow. In 2000, she was the recipient of the Presidential Early Career Award for Scientists and Engineers presented by the White House. In 2002, she was named one of the 100 top young innovators in science and engineering in the world by MIT's *Technology Review* magazine. She received the IEEE Engineering in Medicine and Biology Society Early Career Achievement Award in 2004 and the International Union of Radio Science (URSI) Isaac Koga Gold Medal in 2005 “for contributions to the development of enhanced finite-difference time-domain methods in computational electromagnetics, and ultrawideband microwave imaging techniques for early breast cancer detection.” In 2007, she received the IEEE Transactions on Biomedical Engineering Outstanding Paper Award.

Dr. Hagness has also received numerous teaching awards and recognitions, including the 2003 University of Wisconsin Emil Steiger Distinguished Teaching Award. Her innovations span the undergraduate and graduate curriculum, and her interests include the recruitment and retention of women students in electrical engineering and the development of technology-enhanced learning tools. She is currently leading a college-wide effort to develop a modular undergraduate curriculum on society's engineering grand challenges. Her educational research activities have been supported by a National Science Foundation CAREER award.

