Frontiers in Education
Expanding Educational Opportunities through Partnerships and Distance Learning

The Hyatt Regency Savannah • Savannah, Georgia

34th Annual
CONFERENCE AWARDS BANQUET
Saturday, October 23, 2004

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American Society for Engineering Education (Educational Research Methods Division)

IEEE Education Society

IEEE Computer Society
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Awards and Recognition Coordinator .............................................. Daniel M. Litynski

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Frontiers in Education Conference

FIE Benjamin J. Dasher Best Paper Award ................................ Ann E. Sobel
FIE Ronald J. Schmitz Award ........................................................ Larry G. Richards

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IEEE ES Achievement Award .................................................... Chalmers F. Sechrist
IEEE ES Hewlett-Packard/Harriett B. Rigas Award .................. Daniel M. Litynski
IEEE ES Mac Van Valkenburg Early Career Teaching Award .... Burks Oakley II
IEEE ES McGraw-Hill/Jacob Millman Award ............................... Daniel M. Litynski
IEEE ES Meritorious Service Award ............................................ Edwin C. Jones Jr.
IEEE ES Transactions on Education Best Paper Award ........... David A. Conner

ASEE ERM Division

ASEE ERM Division Distinguished Service Award ....................... Eric P. Soulsby
ASEE ERM Division Helen Plants Award ................................. Richard S. Culver

IEEE Computer Society

IEEE CS CSE Undergraduate Teaching Award ......................... Wolfgang Giloi
IEEE CS Dist. Service in a Pre-College Environment
Award .............................................................................. Fiorenza Albert-Howard
IEEE CS Taylor L. Booth Education Award ............................... James T. Cain

ASEE ECE Division

Hewlett-Packard Frederick Emmons Terman Award ................... Edwin C. Jones

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Tim L. Skvarenina, FIE 2004 Program Co-chair
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Daniel J. Moore, FIE 2004 Program Co-chair and FIE Steering Committee Member
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Tim L. Skvarenina, FIE Steering Committee Member

IEEE Computer Society

Carl K. Chang, 2004 President
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Wolfgang Giloi, 2004 Awards Chair
Ann Q. Gates, FIE Steering Committee Member
Jane Prey, FIE Steering Committee Chair
Ann E. Sobel, FIE Steering Committee Member
Awards Ceremony Agenda

Moderator: Daniel M. Litynski, Vice President
IEEE Education Society

ASEE ECE Division Hewlett-Packard Frederick Emmons Terman Award
Presenter: Wayne C. Johnson, Executive Director, University Relations Worldwide
Hewlett-Packard Corporation

ASEE ERM Division Distinguished Service Award
Presenter: Eric P. Soulsby, Chair
ASEE ERM Division

ASEE ERM Division Helen Plants Award: Best Non-Traditional Session at FIE
Presenter: Eric P. Soulsby, Chair
ASEE ERM Division

IEEE Computer Society Computer Science and Engineering Undergraduate Teaching Award
Presenter: Doris L. Carver, 1998 President
IEEE Computer Society

IEEE Computer Society Distinguished Service in a Pre-College Environment Award
Presenter: Doris L. Carver, 1998 President
IEEE Computer Society

IEEE Computer Society Taylor L. Booth Education Award
Presenter: Doris L. Carver, 1998 President
IEEE Computer Society

IEEE Education Society Achievement Award
Presenter: David V. Kerns Jr., President
IEEE Education Society

IEEE Education Society Hewlett-Packard/Harriett B. Rigas Award
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Hewlett-Packard Corporation

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Presenter: David V. Kerns Jr., President
IEEE Education Society
IEEE Education Society McGraw-Hill/Jacob Millman Award
Presenter: David V. Kerns Jr., President
IEEE Education Society

IEEE Education Society Meritorious Service Award
Presenter: David V. Kerns Jr., President
IEEE Education Society

IEEE Education Society Transactions on Education Best Paper Award
Presenter: David V. Kerns Jr., President
IEEE Education Society

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award
Presenter: Ann E. Sobel, Chair
FIE 2003 Benjamin J. Dasher Best Paper Award Committee

Frontiers in Education Conference Ronald J. Schmitz Award
Presenter: Larry G. Richards, Chair
FIE Ronald J. Schmitz Award Committee
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.”

Keshab K. Parhi holds BTech., MSEE, and PhD degrees from the Indian Institute of Technology, Kharagpur (India) (1982), the University of Pennsylvania, Philadelphia (1984), and the University of California—Berkeley (1988), respectively.

He joined the Department of Electrical and Computer Engineering at the University of Minnesota–Minneapolis in 1988 as an assistant professor. He became an associate professor in 1992 and a professor in 1995. In 1997, he was appointed to hold the Edgar F. Johnson Professorship in Electronic Communications. In 2000, he was named a Distinguished McKnight University Professor.

He has published 370 papers in VLSI architectures for digital signal and image processing, adaptive digital filters and equalizers, error control coders, cryptography architectures, high-level architecture transformations and synthesis, low-power digital systems, and computer arithmetic. He has authored *VLSI Digital Signal Processing Systems* (Wiley, 1999) and co-edited the reference book *Digital Signal Processing for Multimedia Systems* (Marcel Dekker, 1999).

Dr. Parhi received the 2003 IEEE Kiyo Tomiyasu Technical Field Award, the 2001 IEEE W.R.G. Baker Award for the best paper published in all of IEEE during a calendar year, a Golden Jubilee medal from the IEEE Circuits and Systems Society in 1999, a 1996 Design Automation Conference best paper award, the 1994 Darlington best paper award, and the 1993 Guillemin-Cauer best paper award (both from the IEEE Circuits and Systems Society), the 1991 paper award from the IEEE signal processing society, and the 1991 Browder Thompson prize paper award from the IEEE. He also received a 1992 National Science Foundation Young Investigator Award and the 1987 Eliahu Jury Award at the University of California—Berkeley for excellence in systems research.

Dr. Parhi has served on numerous editorial boards and technical program committees and was general chair of the 2002 IEEE Workshop on Signal Processing Systems (SIPS). He has been a distinguished lecturer of the IEEE Circuits and Systems Society and is an IEEE fellow.
Larry G. Richards is an associate professor in the Department of Mechanical and Aerospace Engineering at the University of Virginia. He holds an undergraduate degree from Michigan State University and a doctorate from the University of Illinois, both in psychology. He joined the School of Engineering and Applied Science at UVA in 1976 and moved into mechanical engineering in 1985 to develop and administer a new Manufacturing Systems Engineering Program. He also directed the Center for Computer-Aided Engineering and is associate editor of the Journal of Engineering Design.

Dr. Richards regularly teaches Invention and Design (with Mike Gorman), Creativity and New Product Development, one section of the Mechanical Engineering Senior Design Course, and occasional applied math courses, especially Probability and Statistics.

Dr. Richards’ research includes developing and assessing innovative methods to improve engineering education, including directed inquiry, computer-based techniques, case methods, and distance learning. He has an NSF grant to develop engineering teaching kits to introduce engineering design into middle-school science and math classes.

Dr. Richards is the UVA campus representative to the American Society of Engineering Education and participates in the Education Research and Methods Division and Frontiers in Education. He is active in the National Collegiate Inventors and Innovators Association, and is a member of the new ASEE Divisions on Entrepreneurship and K–12 Engineering Education and Outreach.
William C. Oakes
Associate Professor
Engineering Education
Purdue University

Past Recipients
'80 Helen Plants
'81 Jim Russell
  John C. Lindenlaub
'82 Karl A. Smith
  Harold Goldstein
'83 E. Dendy Sloan
  Charles F. Yokomoto
'84 David W. Johnson
  Karl A. Smith
'85 Billy V. Koen
'86 Martha A. Nord
  Patricia H. Whiting
'87 John C. Lindenlaub
'89 Karl A. Smith
'91 Troy E. Kostek
'92 Barbara M. Olds
  Ronald L. Miller
'93 John C. Lindenlaub
  Alisha A. Waller
'94 Billy V. Koen
'95 Burks Oakley II
  Mark A. Yoder
'96 Alisha A. Waller
  Edward R. Doering
  Mark A. Yoder
'97 Karl A. Smith
  Elizabeth A. Eschenbach
  James D. Jones
'98 Alice Agogino
'99 Melinda Piket-May
  Julie L. Chang

ASEE ERM Division Helen Plants Award: Best Non-Traditional Session at FIE
Presented by: Eric P. Soulsby

“Best non-traditional session, FIE 2003: Integrating Service Learning into Engineering and Computer Science Courses.”

William C. Oakes is an associate professor in the Department of Engineering Education at Purdue University and co-director of the EPICS Program. He holds BS and MS degrees in mechanical engineering from Michigan State University. He worked as a design engineer for GE Aircraft Engines until he felt a calling to teach and left to pursue a PhD at Purdue University. He remained there, joining the faculty of the Department of Engineering Education.

He has co-authored six textbooks, published more than 30 conference and journal papers on engineering education, and conducted a dozen faculty development workshops in engineering service-learning in the past three years. He is an active member in the ASEE, having chaired the Illinois/Indiana Section, served on the board of the Freshman Programs, and currently co-chairing the 2005 Frontiers in Education Conference.

Dr. Oakes has received numerous awards, including the National Society of Professional Engineers Educational Excellence Award (2004), Purdue’s Charles B. Murphy Outstanding Undergraduate Teaching Award (2002), and Purdue Engineering’s Dean A.A. Potter Outstanding Teaching Award (2001). He is a fellow of the Purdue University Teaching Academy and was an Indiana Campus Compact Fellow (1999).
IEEE Computer Society
Computer Science and Engineering
Undergraduate Teaching Award for 2003

Presented by: Doris L. Carver

“To recognize outstanding contributions to undergraduate education through both teaching and service.”

Sally A. Fincher joined the Computing Laboratory at the University of Kent UK in 1996 and leads the Computers and Education Research Group. She is editor of the journal Computer Science Education and a member of the editorial review board of the Journal of Computers in Mathematics and Science Teaching. She is a corresponding member of IFIP WG 3.2 (informatics education at the university level) and is secretary of the ACM Special Interest Group on Computer Science Education.

Dr. Fincher has authored numerous papers and edited three books, including Computer Science Education Research (Routledge Falmer, January 2004); and Computer Science Project Work: Principles and Pragmatics (Springer-Verlag, January 2001).

Recently she has worked on two NSF-funded projects: Bootstrapping Research in Computer Science Education and Scaffolding Research in Computer Science Education. Together they have introduced more than 40 researchers to the field.

Dr. Fincher is recognized for sustained contributions to undergraduate computer science through rigorous examination of teaching effectiveness, and fostering and promoting research in computer science education.

Sally A. Fincher
Lecturer and Head
Computers and Education Research Group
University of Kent—Canterbury

Past Recipients
’99 Timothy J. Long
  Bruce W. Weide
  Joseph L. Zachary
’01 David G. Meyer
  Steven S. Skiena
’02 Alan Clements
Robert A. Reilly, an IEEE senior member, is receiving this award for his pioneering work as a founder of K12Net. The award is given for vision and leadership in developing international virtual learning communities to evolve K–12 educational theory, curriculum, and pedagogy through the active exchange of information, ideas and technological innovation.

K12Net is gone, replaced by the Internet. It once provided a way for children and teachers in their classrooms and homes around the world to talk to each other about curricular subjects on a local modem call with no fees. K12Net used FIDOnet Bulletin Board Systems as the platform through which it distributed its network feeds.

K12Net was “introductory telecom for the masses” that provided more curricular-oriented value for the cost than any other technology available. K12Net’s inexpensive deployment and operating costs, and its emphasis on curricular content, made it both feasible and compelling to put modems in elementary and secondary school classrooms, and connected children and teachers around the world for the first time.

Founded in 1990, long before most K–12 teachers, students, and administrators had ever heard of the Internet, K12Net’s international growth was explosive. By 1994, there were more than 100 K12Net BBSs in New Zealand alone. By the end of its brief claim to glory, tens of thousands of teachers, children, and parents had their first real exposure to the online world. In about 1995, the World Wide Web and cheap local access to the Internet started to become ubiquitous. The aging, slower FIDOnet technology that K12Net relied on became obsolete. K12Net users were ready for the Internet. From that point on, K12Net’s purpose had been served and it began to fade. By 1997, nearly all K12Net BBSs had disappeared, but it had made a difference!
IEEE Computer Society
Taylor L. Booth Education Award for 2003

Presented by: Doris L. Carver

“To recognize outstanding contributions to undergraduate education through both teaching and service.”

Eugene H. Spafford is professor of computer sciences at Purdue University, professor of philosophy (courtesy appointment), professor of communication (courtesy), professor of electrical and computer engineering (courtesy), and executive director of the Center for Education and Research in Information Assurance and Security. CERIAS is a campus-wide multidisciplinary center with a broadly focused mission to explore issues related to protecting information and information resources. Dr. Spafford has written extensively about information security, cybercrime, software engineering, and professional ethics. He has published more than 100 articles and reports on his research, has written or contributed to more than a dozen books, and serves on the editorial boards of most major infosec journals.

Dr. Spafford is a fellow of the ACM, the AAAS, and the IEEE, and a charter recipient of the Computer Society’s Golden Core Award. In 2000, he was named a CISSP, honoris causa. He was the year 2000 recipient of the NIST/NCSC National Computer Systems Security Award, generally regarded as the field’s most significant honor in information security research. In 2001, he was a recipient of the Charles B. Murphy Award and named a fellow of the Purdue Teaching Academy. In 2003, he was named to the Book of Great Teachers, thus receiving all three of the university’s highest awards for outstanding teaching. In 2001, he was elected to the ISSA Hall of Fame and awarded the William Hugh Murray medal of the NCISSE for his contributions to research and education in infosec. He is a 2003 recipient of the Air Force Medal for Meritorious Civilian Service.

Among his many activities, Dr. Spafford is co-chair of the ACM U.S. Public Policy Committee, a member of the board of the Computing Research Association, and a member of the President’s Information Technology Advisory Council.

Dr. Spafford is recognized for excellence as an educator, and for outstanding contributions to the definition, materials, and practice of information security and computing.
IEEE Education Society Achievement Award
Presented by: David V. Kerns Jr.

“For sustained contributions to engineering education and the IEEE Education Society.”

William E. Sayle II received a BSEE (1963) and MSEE (1964) from the University of Texas–Austin and a PhD in electrical engineering (1970) from the University of Washington. He worked for the Boeing Company during 1965–72. From 1970 until 2003, he was a faculty member at Georgia Institute of Technology, responsible for undergraduate programs in electrical and computer engineering from 1988 to 2003. He was an early contributor to the SUCCEED engineering education coalition. Since 2003, he has been director of undergraduate programs for Georgia Tech Lorraine in Metz, France.

From 1979 thorough 1993, he was an engineering faculty consultant for the Georgia Tech College of Engineering for the SECME organization. In that capacity he worked with students, teachers, and administrators at 61 Georgia secondary and elementary schools to improve the quality of mathematics, science, and language arts education and thereby increase the pool of underrepresented population groups qualified for and interested in pursuing engineering education.

Since 1983 Dr. Sayle has been an IEEE program evaluator for more than 20 institutional visits for the Engineering Accreditation Commission of ABET. He also was a member (1990 to present) and chair (1995 and 1996) of the IEEE Committee on Engineering Accreditation Activities, and a member and chair (1996 and 1997) of the IEEE Accreditation Policy Committee (1996 and 1997). From 1998 through 2004, he was a member of the EAC, chairing visits to six institutions. He has also been a program evaluator on several international substantial equivalency visits for ABET.
Jennifer L. Welch
Professor
Computer Science
Texas A&M University
College Station, Texas

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 Jokerst
'03 Joanne Bechta Dugan

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

Presented by: Wayne C. Johnson

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

Jennifer L. Welch is professor of computer science at Texas A&M University. She holds a BA degree summa cum laude in mathematics from the University of Texas–Austin, an SM degree from the University of Massachusetts–Amherst, and PhD degrees in computer science from the Massachusetts Institute of Technology in 1979, 1980, and 1988.

Dr. Welch is well-known for her research in distributed computing systems and is co-author of the second edition of Distributed Computing: Fundamentals, Service Locations, and Advanced Topics. Among her many awards are the Lockheed Martin Excellence in Teaching Award, the Association of Former Students Teaching Award, and the National Science Foundation’s Presidential Young Investigator Award. Dr. Welch is a Texas Engineering Experiment Station fellow.
IEEE Education Society
Mac Van Valkenburg Early Career Teaching Award

Presented by: David V. Kerns Jr.

“To recognize members of the IEEE Education Society who have made outstanding contributions to teaching unusually early in their professional careers.”

Parham Aarabi is a Canada Research Chair in Multi-sensor Information Systems, an assistant professor in the Edward S. Rogers Sr. Department of Electrical and Computer Engineering, and founder and director of the Artificial Perception Laboratory. He manages a team of 35 graduate and undergraduate researchers. He received a PhD (2001) in electrical engineering from Stanford University, MASc (1999) in computer engineering from the University of Toronto, and BASc (1998) in engineering science (electrical option) from the University of Toronto.

His recent awards include the Ontario Distinguished Researcher Award, the 2002 Fall Session Best Computer Engineering Professor Award, the 2002–03 Faculty of Engineering Early Career Teaching Award, and the 2003 ECE Professor of the Year Award. His current research, which includes multi-sensor information fusion, human-computer interactions, and VLSI implementation of sensor fusion algorithms, has appeared in more than 50 peer-reviewed publications and been covered by media such as The New York Times, MIT’s Technology Review magazine, Scientific American, Popular Mechanics, Discovery Channel, CBC Newsworld, and City TV.
IEEE Education Society
McGraw-Hill/Jacob Millman Award

Presented by: David V. Kerns Jr.

“For outstanding contributions to electrical engineering education through textbooks, research, and mentoring of students.”

James D. Plummer is the Frederick Emmons Terman Professor and dean of the School of Engineering, and the John M. Fluke Professor of Electrical Engineering. He has also directed the Stanford Nanofabrication Facility and was national director of the NSF National Nanofabrication Users Network. He is a fellow of the IEEE and a member of the National Academy of Engineering.

Dr. Plummer received BS, MS, and PhD degrees in electrical engineering from the University of California–Los Angeles and Stanford University. He was a research associate and associate director of the Integrated Circuits Laboratory, and directed ICL for nearly nine years. He was a senior associate dean in the School of Engineering from 1993 to 1996, until he assumed the chairmanship of the Electrical Engineering Department in 1997 before becoming dean in 1999.

His research has included a mixture of experimental studies and computer modeling aimed at understanding the basic physical principles that take place in semiconductors. A major focus is on new nanoscale silicon devices. Dr. Plummer is author or co-author of more than 400 publications and holds several U.S. patents. He has received the SRC Inventor Recognition award, the Electrochemical Society Solid State Science and Technology award, the IEEE Electron Device Society J. J. Ebers award, and the Semiconductor Industry Association University Research award. He has contributed to Process and Device Modeling for Integrated Circuit Design (Noordhoff-Leyden 1977), Power Integrated Circuits (McGraw Hill 1985), and is co-author of Silicon VLSI Technology: Fundamentals, Practice, and Modeling (Prentice Hall 2000).

Dr. Plummer is also known as a gifted teacher at the undergraduate and graduate levels. He has won the Graduate Teaching Award, the Tau Beta Pi Undergraduate Teaching Award, and a Best Teacher Award from the Society of Women Engineers. He has mentored more than 75 former or current PhD students.
IEEE Education Society
Meritorious Service Award
Presented by: David V. Kerns Jr.

“For contributions to Education Society Chapter Development in Norway and across Europe.”

Trond Clausen is chair of the IEEE Education Society Nordic Chapter and a tireless contributor to the development of partnerships across the Atlantic and throughout Europe. He is an associate professor at Telemark University College in Norway. His interests lie in electrical engineering in general and in electric motor drives in particular. He does extensive work in educational research, including methods and relationships among academia, society, and industry. Dr. Clausen is active in national organizational work, including broad cooperation with professional societies, employer and employee organizations, the ministry, and its relevant agencies. He has great interest in international cooperation, including organizational work, student exchanges, and paper review.

Dr. Clausen chairs the IEEE Education Society Chapter for the Joint Norway/ Denmark/ Finland/ Iceland/ Sweden Sections. He has been organizer and interim chair (1998–2002) of the IEEE Education Society Chapter for the Joint Norway/ Denmark/ Finland/ Sweden Sections, with links to the Baltic countries. For many years he was IEEE Education Society liaison to Northern Europe. He has been an Education Society Administrative Committee member-at-large for 1999, 2000, and 2001. He was instrumental in establishing the Conference “ICEE 2001 to Norway” as a joint national effort to enhance broad-scoped engineering education development. He is vice chair of the Chapter and Regional Activities Committee and member of the ICEE International Steering Committee (1999–2001, 2002–03, 2004).
M. Brian Blake
Assistant Professor
Computer Science
Georgetown University

Russell L. Pimmel
Program Director
Division of Undergraduate Education (DUE)
National Science Foundation

Past Recipients
’99 J.A. Buck
H. Owen
J.P. Uyemura
C.M. Verber
D.J. Blumenthal
’00 David J. Russomanno
Ronald D. Bonnell
’01 Christopher W. Trueman
’02 Mohan Krishnan
Mark J. Paulik
’03 Tyson S. Hall
James O. Hamblen
Kimberly E. Newman

IEEE Education Society Transactions on Education Best Paper Awards

Presented by: David V. Kerns Jr.

“A Student-Enacted Simulation Approach to Software Engineering Education,”
February 2003, Pages 124–132

M. Brian Blake is an assistant professor in the Department of Computer Science at Georgetown University. Previously he worked for seven years at General Electric, Lockheed Martin, Trident Data Systems, and the MITRE Corporation. His research is in intelligent agents and workflow, enterprise integration, component-based software engineering, and software engineering education. He holds a bachelor of electrical engineering degree from the Georgia Institute of Technology and a master of science in electrical engineering from Mercer University, both in Atlanta, Georgia. His PhD in information and software engineering is from George Mason University in Fairfax, Virginia.

“A Practical Approach for Converting Assignments into Team Projects,” May 2003, Pages 273-282

Russell L. Pimmel is lead program director for the Adaptation and Implementation track of the Course, Curriculum and Laboratory Improvement Program. He joined NSF in 2003 in the Division of Undergraduate Education. Previously he held faculty appointments at the University of Alabama–Tuscaloosa, Ohio State University, University of North Carolina, and University of Missouri–Columbia. His industrial experience includes positions with the Emerson Electric Co., Battelle Research Laboratory, and McDonnell-Douglas Corp. He holds a BS degree from St. Louis University and MS and PhD degrees from Iowa State University, all in electrical engineering.
The Picker Engineering Program at Smith College has formed a close partnership with Smith’s Department of Education and Child Study and Department of Educational Outreach in an effort to fundamentally change the delivery of the engineering curriculum. This paper presents learner-centered educational strategies used in Continuum Mechanics I, a course that includes topics from engineering statics, dynamics, and mechanics of materials. Pedagogical elements used in this course include a variety of active learning strategies in the classroom, conceptual frameworks and narratives, project-based learning, metacognitive approaches, and an explicit effort to make a connection with other subjects in the liberal arts. An assessment of these strategies based on the responses of 27 women who have taken the course is presented, and shows that these strategies are effective in positively influencing student learning and attitudes.

Glenn W. Ellis is the Ford Motor Visiting Professor of Engineering Education in the Picker Engineering Program at Smith College. He received a BS in civil engineering from Lehigh University and MA and PhD degrees in civil engineering and operations research from Princeton University. His research focuses on developing, testing, and refining pedagogical tools for teaching engineering at the undergraduate and K–12 levels, as well as investigating how K–12 teachers can be educated to integrate engineering effectively into their classrooms. In addition to engineering education, Dr. Ellis has conducted research in earthquake engineering, geotechnical engineering, stochastic modeling of engineering systems, and the application of artificial neural networks to model civil and environmental systems. Dr. Ellis teaches engineering mechanics, systems modeling, and secondary school education, and has received several teaching awards. He develops and teaches engineering education workshops for K–12 teachers.
Past Recipients
'73 Walter D. Story
'74 Richard Hooper
'75 John J. Alan III
J.J. Lagowski
'76 John Hipwell
David Blaume
'77 John W. Renner
'78 Albert J. Morris
'79 Donald R. Woods
Cameron M. Crowe
Terrence W. Hoffman
Joseph D. Wright
'80 Marilla D. Svinicki
'81 Martha Montgomery
'82 A.L. Riemenschneider
Lyle D. Deisel
James M. Trosino
'83 Davood Tashayyod
Bau Onaral
'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
Gregg L. Vaughn
'88 Richard M. Felder
'89 Richard C. Compton
'90 Cindy A. Greenwood
'91 Robert Wheelchel
'92 William LeBold
Dan D. Budny
'93 Daniel M Hull
Arthur H. Guenther
'94 Burks Oakley II
Roy E. Roper
'95 Curtis A. Carver Jr.
Richard A. Howard
'96 Val D. Hawks
'97 Edwin Kashy
Michael Thoennessen
Yihjia Tsai
Nancy E. Davis
Sheryl L. Wolfe
'98 A.B. Carlson
W.C. Jennings
P.M. Schoch
'00 Wayne Burleson
Aura Ganz
Ian Harris
'01 David W. Petr
'03 Zeynep Dilli
Neil Goldsman
Lee Harper
Steven I. Marcus
Janet A. Schmidt

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award (Cont’d.)

Gail E. Scordilis, director of educational outreach at Smith College, holds a PhD in microbiology from the University of Massachusetts and a BA from Smith College. She has developed innovative programs that address the challenges of overcoming stereotypes and attracting, encouraging, and retaining students in STEM fields. She established the Smith College Summer Science and Engineering Program for high school girls, promoting the advancement of more than 1,000 young women from around the globe in STEM study. Active in the professional development of teachers, Dr. Scordilis founded the Smith College Summer Institute for Educators, a workshop program addressing issues in STEM education for hundreds of middle and high school educators. She directed a GTE-funded Designing Engineering for Girls project, illuminating factors that affect high school girls’ decisions to pursue engineering study. She is also a principal investigator of the Engineering and Education Partnership: A Learner-Centered Approach Toward Quantitative Excellence, a GE-funded program designed to positively influence the attitudes, retention rates, career choices, skills, and knowledge of K–16 students in engineering. Most recently, Dr. Scordilis is co-founder of the Smith College Urban Education Initiative, an innovative service learning program involving partnerships with public schools, museums, and programs throughout the country. Her work has been highlighted in reports by the National Council for Research on Women and the Association for Women in Science, and she is a recipient of the YWCA Woman of Achievement Award.

Carla M. Cooke has been a research associate with the Smith College Engineering and Education Partnership team since 2002. She holds a bachelor's degree in biological sciences from Smith College through the Ada Comstock Scholars Program and a master of arts in landscape design from the Conway School of Landscape Design. She developed and implemented the evaluation process conducted by the Partnership for Undergraduate Engineering Courses, summer programs for high school students, and intensive workshops for graduate students and in-service teachers. She manages project funding for the partnership and serves as support staff for the Office of Educational Outreach and the Summer Science and Engineering Program.
James A. Roberts
Vice Provost for Research
President of the KU Center for Research, Inc. (KUCR)
Professor of Electrical Engineering and Computer Science

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

Frontiers in Education Conference Ronald J. Schmitz Award
Presented by: Larry G. Richards

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

James A. Roberts received BS, MS, and PhD degrees in electrical engineering from the University of Kansas, MIT, and Santa Clara University, respectively. He is a licensed professional engineer in Kansas and a fellow of the Institute of Electrical and Electronics Engineers. He is a member of U.S. Senator Pat Roberts’ Advisory Committee on Science and Technology and a member of the board of the International Engineering Consortium, Inc.

In the preceding five and one-half years, he was associate vice chancellor for research and public service and associate vice provost for research. Dr. Roberts is professor of electrical engineering and computer science, specializing in teaching and research in wireless telecommunications. He was department chair from 1990 to 1997.

Dr. Roberts went to KU in 1990 following a successful career in industry. From 1987 to 1990, he was the first manager of TRW-Denver Operations, which grew to become a $40 million-per-year high-tech engineering organization. His leadership helped the ADF win the U.S. government’s Most Outstanding Field Station Award in 1987. From 1969 to 1983, he was with ESL, Inc., a start-up company in California’s Silicon Valley. He became manager of the Communications and Radar Laboratory in 1980. Before joining ESL, he was with RCA on Boston’s Route 128, where he was an electronics engineer for the Apollo mission to the moon. He was an adjunct faculty member at Santa Clara University from 1978 to 1983.

Dr. Roberts was FIE program co-chair in 1998, general chair in 2000, and a member of the Steering Committee since 1996. He was a member of the IEEE Education Society Administrative Committee from 1995 to 1998 and served on the Fellows Committee in 2003 and 2004. He was elected secretary-treasurer of the National Electrical Engineering Department Heads Association (NEEDHA, now ECEDHA) in 1997 and was slated to assume the presidency in 1998 when he was promoted from his department chair position.