

# **2008 Frontiers in Education Conference**

## **Awards Presentations**

### **Thursday, October 23 ..... Plenary Address and Awards Presentations**

**8:00 a.m.-9:30 a.m.**

#### **Frontiers in Education (FIE) Conference Awards**

FIE 2007 Benjamin J. Dasher Best Paper Award

FIE 2007 Helen Plants Award

FIE Ronald J. Schmitz Award

### **Friday, October 24 ..... 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 24 ..... Awards Banquet**

**6:30 p.m.-9:30 p.m.**

#### **ASEE Educational Research and Methods Division**

Distinguished Service Award

#### **IEEE Education Society**

Achievement Award

Best *Transactions* Paper Award

Chapter Achievement Award

Distinguished Chapter Leadership Award

Distinguished Member Award

Edwin C. Jones, Jr. Meritorious Service Award

Mac Van Valkenburg Early Career Teaching Award

## **Award Selection Committee Chairs**

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### ***Frontiers in Education Conference***

Benjamin J. Dasher Best Paper Award .....	Trevor Harding
Helen Plants Award .....	Jennifer Kadowec
Ronald J. Schmitz Award .....	Joseph L. A. Hughes

### ***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 .....	R. J. (Jake) Baker
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### ***IEEE Education Society***

Achievement Award .....	Lyle D. Feisel
Best <i>Transactions</i> Paper Award .....	Charles Fledderman
Chapter Achievement Award .....	Trond Clausen
Distinguished Chapter Leadership Award .....	Robert A. Reilly
Distinguished Member Award .....	Marion Hagler
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



**Eric Hamilton**

Professor and Associate Dean  
Graduate School of Education and  
Psychology  
Pepperdine University



**Andrew Hurford**

Department of Teaching and  
Learning  
Center for Science and  
Mathematics Education  
University of Utah

## Frontiers in Education Conference Benjamin J. Dasher Best Paper Award

*Presented by: Trevor Harding*

***“Combining Collaborative Workspaces with Tablet Computing: Research in Learner Engagement and Conditions of Flow,” FIE 2007, Session T3C***

**Eric Hamilton** is professor and associate dean of Pepperdine University’s Graduate School of Education and Psychology, and currently teaches in Pepperdine’s Mathematics Department. He is currently one of the principal investigators for an NSF Phase-III Course, Curriculum and Laboratory Improvement (CCLI) project and of a Department of Education and NSF-funded project on learning environments that blend collaborative spaces, avatars, digital libraries and tablet computers. The Dasher Award paper reports work completed under Microsoft Research funding to the US Air Force Academy and carried out in the Academy’s mathematics classrooms, where he was a research professor and director of the Center for Research on Learning and Teaching. Prior to that, he was a division director at NSF. In recent years, Dr. Hamilton has organized a set of international distributed learning research symposia held in China, Singapore, Germany, and east Africa under funding from NSF and Microsoft Research.

**Andrew Hurford** received a Ph.D in Science and Mathematics Education from the University of Texas at Austin. His research involves modeling human learning as a complex adaptive system and development of next-generation technologies for teaching and learning. Trained as an experimental research physicist, he is now applying that knowledge to modeling and exploring applications of non-linear systems in learning and teaching. His current efforts include design-based research that focuses on both the theoretical and practical connections between complexity and learning, as well as applications of technology for education.

Dr. Hurford is also the liaison between the University of Utah’s College of Education and College of Science in support of the new Center for Science and Mathematics Education. Dr. Hurford is dedicated to improving the quality of education at K-16 levels by helping students better understand their own learning trajectories as well as helping pre-service and in-service teachers to become more capable science and mathematics educators. He also works to support American Indian students in all phases of their educations.

# Frontiers in Education Conference

## Benjamin J. Dasher Best Paper Award (continued)

### Past Recipients

- '73 Walter D. Story
- '74 Richard Hooper
- '75 John J. Alan III and J.J. Lagowski
- '76 John Hipwell and David Blaume
- '77 John W. Renner
- '78 Albert J. Morris
- '79 Donald R. Woods, Cameron M. Crowe, Terrence W. Hoffman, and Joseph D. Wright
- '80 Marilla D. Svinicki
- '81 Martha Montgomery
- '82 A.L. Riemenschneider and Lyle D. Feisel
- '83 Davood Tashayyod, Banu Onaral, and James M. Trosino
- '84 Bill V. Koen
- '85 Bill V. Koen
- '86 Richard S. Culver
- '87 David A. Conner, David G. Green, Thomas C. Jannett, James R. Jones, M.G. Rekoff, Jr., Dennis G. Smith, and Gregg L. Vaughn
- '88 Richard M. Felder
- '89 Richard C. Compton and Robert York
- '90 Cindy A. Greenwood
- '91 Robert Whelchel
- '92 William LeBold and Dan D. Budny
- '93 Daniel M Hull and Arthur H. Guenther
- '94 Burks Oakley II and Roy E. Roper
- '95 Curtis A. Carver, Jr. and Richard A. Howard
- '96 Val D. Hawks
- '97 Edwin Kashy, Michael Thoennessen, Yihjia Tsai, Nancy E. Davis, and Sheryl L. Wolfe
- '98 A.B. Carlson, W.C. Jennings, and P.M. Schoch
- '99 Wayne Burleson, Aura Ganz, and Ian Harris
- '00 David W. Petr
- '02 Zeynep Dilli, Neil Goldsman, Lee Harper, Steven I. Marcus, and Janet A. Schmidt
- '03 Glenn W. Ellis, Gail E. Scordilis, and Carla M. Cooke
- '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



**Maura Borrego**  
Assistant Professor  
Department of Engineering  
Education  
Virginia Tech



**Lynita Newswander**  
Ph.D. Candidate  
School of Public and International  
Affairs  
Virginia Tech

## Frontiers in Education Conference Helen Plants Award

*Presented by: Alan Clements*

***Best Nontraditional Session at FIE 2007:  
“Applying Theories of Interdisciplinary Collaboration in  
Research and Teaching Practice,” Session S2F***

**Maura Borrego** is an assistant professor of engineering education at Virginia Tech. Dr. Borrego holds an M.S. and Ph.D. in materials science and engineering from Stanford University. Her current research interests center around interdisciplinary collaboration among faculty and graduate students. In 2006, she was awarded a CAREER grant from NSF to study interdisciplinarity in engineering graduate programs nationwide, and in 2008 she was awarded the Best Paper Award from the American Educational Research Association's Division I, Education in the Professions.

**Lynita Newswander** is a Ph.D. student in the School of Public and International Affairs at Virginia Tech. She also holds master's degrees in English and political science from Virginia Tech. Her current research interests are interdisciplinary and reside at the intersection of theory and the empirical aesthetic. She is especially attracted to the study of interdisciplinary graduate education and understanding how to make it most meaningful for students.



**Lisa McNair**

Assistant Professor  
Department of Engineering  
Education  
Virginia Tech

## Frontiers in Education Conference Helen Plants Award (continued)

**Lisa McNair** is an assistant professor of engineering education at Virginia Tech and co-director of the VT Engineering Communication Center (VTECC). She is co-PI on several NSF-funded projects that explore issues of learning, practicing and teaching interdisciplinarity in university and industry settings. She received her Ph.D. in linguistics from the University of Chicago and a B.A. in English from the University of Georgia. Her teaching emphasizes the roles of engineers as communicators, the foundations and evolution of the engineering education discipline, documenting undergraduate research, and assessing communication in engineering. Her primary research interests are communication and interdisciplinary collaboration, institutional structures that encourage transformational learning, and integrating engineering, the social sciences, and the humanities.

### 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 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



**Ted E. Batchman**

Founding Director  
Renewable Energy Center  
University of Nevada, Reno

### 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

## Frontiers in Education Conference Ronald J. Schmitz Award

*Presented By: Jane Chu Prey*

***For outstanding service to the Frontiers in Education Conference***

**Ted E. Batchman** received his B.S.E.E., M.S.E.E. and Ph.D. degrees from the University of Kansas in 1962, 1963 and 1966, respectively. He worked four years in the aerospace industry and has taught at the University of Queensland, Australia, University of Virginia, University of Oklahoma and the University of Nevada, Reno. He is currently founding director of the Renewable Energy Center at the University of Nevada, Reno. He has been a department chair and dean of engineering for the past 20 years. He was program co-chair of FIE 2000 and general chair of FIE 2001. He has served on the FIE Steering Committee for the past six years and was chair of the FIE Steering Committee in 2007/2008.

He is a fellow of the IEEE and ASEE, recipient of the IEEE Third Millennium Medal, IEEE Education Society 1998 Achievement Award, IEEE Education Society 2000 Meritorious Service Award, is a past member of the IEEE Education Activities Board (EAB) and past chair of the EAB Pre-college Education Committee, a member of the IEEE Education Society Administrative Committee and was editor-in-chief of the IEEE *Transactions on Education* from January 1997 to January 2001. He is a member of Eta Kappa Nu and Tau Beta Pi.





### **Teri Reed-Rhoads**

Associate Dean of the Faculty and  
Professor  
Department of Engineering  
Education  
Purdue University

### **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  
'07 Daniel J. Moore

## **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***

**Teri Reed-Rhoads** is the assistant dean of the College of Engineering for Undergraduate Education, director of the First-Year Engineering Program, and associate professor of the School of Engineering Education at Purdue University. She received her Ph.D. in industrial engineering from Arizona State University in 1999. She joined the faculty of the University of Oklahoma in 1999, became director of Engineering Education in 2003, and associate dean for Engineering Education in 2005. She joined the Purdue faculty in 2006 as executive director of the Institute for P-12 Engineering Research and Learning (INSPIRE).

She received her bachelor's degree in petroleum engineering from the University of Oklahoma in 1985 and spent 7 years in the petroleum industry, during which time she earned her M.B.A. from the University of Texas of the Permian Basin. Dr. Reed-Rhoads' teaching interests include engineering statistics, assessment, quality engineering and introductory freshman engineering courses. Her research interests include statistics education, concept inventory development, assessment and evaluation of learning and programs, recruitment and retention topics, diversity, equity, and P-12 engineering education. She has received funding from a number of National Science Foundation programs, the Department of Education, various foundations, and industry.

Professor Reed-Rhoads has won several teaching and education awards, including the Brandon H. Griffith Teaching Award; Frontiers in Education New Faculty Fellow; an Oklahoma Educators' Leadership Academy Outstanding Professors Participant; and a Committee on Institutional Cooperation (CIC) Academic Leadership Program Fellowship. She is an active participant in the American Society for Engineering Education, the American Educational Research Association, and the Institute of Electronics and Electrical Engineers as well as being a member of the Institute of Industrial Engineers and the American Statistical Association. She is an ABET program evaluator through ASEE.

Dr. Reed-Rhoads served the Educational Research Methods (ERM) Division of ASEE as the Secretary-Treasurer from 2004 to 2008. She was the program chair for ERM for the 2004 ASEE Annual Conference.





## Keith M. Chugg

Professor

Ming Hsieh Department of Electrical  
Engineering

Viterbi School of Engineering  
University of Southern California

## 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 Shoet  
'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

# 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*

**Keith M. Chugg** received the B.S. degree with high distinction in engineering from Harvey Mudd College, Claremont, CA in 1989 and the M.S. and Ph.D. degrees in electrical engineering (EE) from the University of Southern California (USC), Los Angeles, CA in 1990 and 1995, respectively. During the 1995-1996 academic year, he was an assistant professor with the Electrical and Computer Engineering Department, The University of Arizona, Tucson, AZ. In 1996, he joined the EE Department at USC, where he is currently a Professor.

His research interests are in the general areas of signaling, detection, and estimation for digital communication and data storage systems. He is also interested in architectures for efficient implementation of the resulting algorithms. Along with his former Ph.D. students, A. Anastasopoulos and X. Chen, he is co-author of the book *Iterative Detection: Adaptivity, Complexity Reduction, and Applications*, published by Kluwer Academic Press. He is a co-founder of TrellisWare Technologies, Inc., where he is chief scientist. He has served as an associate editor for the IEEE *Transactions on Communications* and was program co-chair for the Communication Theory Symposium at Globecom 2002. He received the Fred W. Ellersick Award for the best unclassified paper at MILCOM 2003.

'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  
'07 Russel Jacob (Jake) Baker

# 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 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.



**James A. Roberts**  
Electrical and Computer  
Engineering  
University of Kansas

### 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  
'07 Sarah A. Rajala  
Marwan A. Simaan

## IEEE Education Society Achievement Award

*Presented by: Susan M. Lord*

***For long-term contribution and sustained dedication to  
the furtherance of engineering education***

**James A. Roberts** joined the University of Kansas (KU) in 1990 following a successful industrial career. He served as department chair until 1997 and then served in the university research office for almost 10 years, including four years as the KU senior research officer. His research area is wireless telecommunications, and he teaches in this area as well as electric circuits, electromagnetics, and power.

He has been active nationally in engineering education including invited talks, papers, and reviews of programs at major universities. He helped form the Central States EE Department Heads Association, serving as president in 1995-1996. In 1997, he was elected secretary/treasurer and director of the National EE Department Heads Association (now ECEDHA). He has been a director of the International Engineering Consortium since 2000.

Roberts was a member of the IEEE Education Society Administrative Committee in 1995-1998 and has served on the EdSoc Fellow Committee four times. He was one of the EdSoc representatives to the FIE Steering Committee for 11 years and was chair in 2006-2007. He has served FIE in a number of roles including conference program co-chair in 1998 and conference general chair in 2000, the conference that established the management model used by FIE to this day.

He received his B.S., M.S., and Ph.D. degrees in electrical engineering from KU, MIT, and Santa Clara University, respectively. He is a Fellow of the IEEE and a registered professional engineer.



**France Bélanger**  
Professor and Alumni Research  
Fellow  
Virginia Tech



**Tracy L. Lewis**  
Assistant Professor  
Radford University



**George M. Kasper**  
Professor  
Virginia Commonwealth  
University

## IEEE Education Society Best *Transactions* Paper Award

*Presented by: Susan M. Lord*

***“Are Computing Students Different? An Analysis of  
Coping Strategies and Emotional Intelligence”***  
*IEEE Transactions on Education, Vol. 50, No. 3,  
August 2007, pp. 188-196*

**France Bélanger** is professor and alumni research fellow in the Department of Accounting and Information Systems at Virginia Tech. Her research focuses on the use of communication technologies, in particular for distributed work and e-business, and on information privacy and security. She is widely published in the information systems field, including in such journals as *Information Systems Research*, *MIS Quarterly*, *Communications of the ACM*, *Journal of Strategic Information Systems*, various *IEEE Transactions*, *Information Systems Journal*, and many others. Dr. Bélanger co-authored two books and is associate editor of *MIS Quarterly*. Her work has been funded by several agencies, corporations and research centers, including the National Science Foundation. She was named a Fulbright Distinguished Chair in 2006 (Portugal) and an Erskine Fellow in 2009 (New Zealand). Dr. Bélanger received her Ph.D. in information systems and decision sciences from the University of South Florida in 1997.

**Tracy L. Lewis** received her Ph.D. from Virginia Tech in computer science in 2004. She holds master's degrees in computer science from NC Agricultural & Technical State University and Virginia Tech, emphasizing software engineering and human computer interaction. She has industry experience in software design, development, and software production research, serving as a member of the Operator Service Position Systems Department at Lucent Technologies and principal research investigator in the Software Production Research Department at Bell Laboratories. Dr. Lewis is currently an assistant professor in the Department of Information Science and Technology at Radford University.

**George M. Kasper** is a professor of information systems at Virginia Commonwealth University. He is the author of over 50 publications and has consulted for a number of business and government agencies on decision support systems and human-computer interface design and interaction. His work has won several awards. He is also chair of the Special Interest Group on Management Information Systems of the Association for Computing Machinery. Dr. Kasper received his Ph.D. from the State University of New York at Buffalo in 1984.





**Wanda J. Smith**  
Associate Professor  
Virginia Tech



**K. Vernard Harrington**  
Associate Professor  
Radford University

## IEEE Education Society Best *Transactions* Paper Award (continued)

**Wanda J. Smith** received her Ph.D. in organizational behavior and human resource management from the University of North Carolina at Chapel Hill in 1992. She is a partner in H&S Enterprises, a firm comprised of business skills, system and support experts specializing in Windows training, network integration, and Internet solutions. She conducts consultant skills training, as well as technology diffusion, and organizational change seminars in the public and private sectors. Dr. Smith is currently an associate professor in the Department of Management at Virginia Tech and serves as principal investigator for the NSF-funded PACE Project.

**K. Vernard Harrington** received his Ph.D. in management from Texas A&M University in 1991. He is a partner in the consulting firm H&S Enterprises. Dr. Harrington conducts seminars in strategic management, teambuilding, and the management of diversity for both private and public sector organizations. Prior to beginning his academic career, Dr. Harrington worked in the computer industry as a programmer and sales manager. He is currently an associate professor and interim chair of the Department of Management at Radford University.

### 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

## **Gulf Chapter**

Chair – Bakr Hassan

Vice-Chair – Ibrahim El-Amin

Secretary – Jaweed Yazdani

Executive Committee Member -

Sadiq Sait Mohammed

Executive Committee Member -

Tareq Y. Al-Naffouri



### **Bakr Hassan**

Vice President of Planning and  
Development  
Ahlia University  
Kingdom of Bahrain

## **IEEE Education Society Chapter Achievement Award**

*Presented by: Susan M. Lord*

***The Gulf Chapter has provided exemplary technical activities, membership services and societal activities.***

The Gulf Chapter of the IEEE Education Society was formed in April 2007 to extend the success of the IEEE Education Society Saudi chapter throughout six countries within the Gulf Region. The major objectives of the joint chapter are to aggregate the expertise within the GCC countries to form an influential unit within the IEEE and IEEE's Region 8 and to establish a link between research groups and communities in the Gulf countries towards emerging technologies, which will empower the Gulf's youth. Major chapter activities include robotics workshops, an ideas challenge contest for college students, and public educational lectures by prominent international and local professionals and scholars. The Gulf Chapter was one of the sponsors of the first International Conference on Technology, Communication and Education (i-TCE) in Kuwait in April 2008. Finally, a student session track was organized and executed by the Saudi, Gulf and Student IEEE chapters at the Saudi Technical Exchange Meeting (STEM) that was held April 29-May 1, 2008 at King Fahd University of Petroleum and Minerals.

**Bakr Hassan** received a Ph.D. in mathematics education in 1979 from the University of Oregon. He also holds a B.S. and M.S. in mathematics from Arizona State University. He worked as a professor of mathematics at King Fahad University of Petroleum and Minerals (KFUPM) in Dhahran, Saudi Arabia. He was chairman of the Mathematical Sciences Department at KFUPM for more than six years. He also established a bilingual preschool at KFUPM where he was chairman of the board for 13 years. He was chosen by the Islamic Educational Scientific & Cultural Organization (ISESCO) in Rabat, Morocco as chairman of the Expert Committee to Develop Mathematics Curriculum for the Muslim Countries at the intermediate and secondary levels and authored seven books on this topic. He was also selected as a member of the National Committee (Ministry of Education) to review new mathematics texts at elementary and intermediate levels. He was the KFUPM representative on many national and international committees. He was a visiting professor/scholar at the University of Illinois in Champaign, Urbana; the Department of Applied Mathematics and Theoretical Physics at the University of Cambridge; and the Shell Center for Mathematical Education, University of Nottingham. During his tenure at KFUPM, he was chairman and member of many standing and ad-hoc committees and published several books and articles in the area of mathematics education.

# IEEE Education Society

## Chapter Achievement Award

(continued)



**Ibrahim El-Amin**  
Professor of Electrical  
Engineering  
King Fahd University of  
Petroleum & Minerals  
Dhahran, Saudi Arabia



**Jaweed Yazdani**  
Lecturer, Information &  
Computer Science  
Department  
Manager, Computing Services  
King Fahd University of  
Petroleum and Minerals,  
Dhahran, Saudi Arabia

In 1993, Dr. Hassan worked at Saudi Aramco Oil Company in Dhahran, Saudi Arabia. He was initially in charge of technical training for computers and communications; he later worked in information and technology planning as a technology consultant. He championed preparing an IT workforce for the future and was in charge of the IT Specialist Development Program. He was a member of the Long-Term Comprehensive Plan for Science & Technology Team in Saudi Arabia. He is currently vice president of planning and development at Ahlia University, the first private university in the Kingdom of Bahrain.

Dr. Hassan is an active community member. He is an IEEE senior member and chairman of the IEEE Education Society in the Gulf/Saudi Arabia. The Saudi chapter won the best 2006 chapter award for small/medium chapters in Region 8. He is also a member of the Saudi Computer Society, where he held several positions. He is also a member of the Arab Thought Forum and the Gulf Development Forum.

**Dr. Ibrahim El-Amin** is a professor of electrical engineering at the King Fahd University of Petroleum and Minerals. He received his Ph.D. and M.S. degrees from the University of Manchester in 1978 and 1975, respectively, in electrical engineering with a specialization in power systems. He obtained his B.S. degree in electrical engineering from the University of Khartoum, Sudan, in 1971. His research interests include power systems, DC transmission, power electronics, and the integration of alternative energy sources into power networks. Dr. El-Amin is a recipient of many awards. Chief among them are: Best Applied Research, KFUPM, 1989; "Feasibility Study for the Interconnection of Arabian Gulf States Electrical Power Systems," submitted to the GCC Secretariat, Riyadh, 1986.

He received the Best Academic Advisor Award, College of Applied Engineering, 1992; Prince Mohammad bin Fahd Prize for Applied Research, 1995-96; and "Feasibility Study Electrical Network Interconnection of Mashreq Arab Countries," submitted to the Arab Fund for Economic and Social Development, Kuwait, 1992. IEEE Third Millennium Medal: The IEEE Headquarters (USA), in celebration of the third millennium, gives the award. It honors members for their outstanding contribution to IEEE activities.

**Jaweed Yazdani** graduated with a master's degree in computer science in 1987 from King Fahd University of Petroleum & Minerals (KFUPM). He is currently working (since 1994) as the manager of the Computing Services Department at KFUPM. Since 1988, he has also taught in the Information & Computer Science (ICS) Department at KFUPM. Currently, he teaches advanced databases, an ICS senior-level course.



# IEEE Education Society

## Chapter Achievement Award

(continued)



**Tareq Y. Al-Naffouri**  
Assistant Professor  
Electrical Engineering  
King Fahd University of  
Petroleum and Minerals,  
Dhahran, Saudi Arabia

Mr. Yazdani is a member of the IT track team for the Aafaq project for development of a Saudi strategic plan for higher education and is a senior team member in the university ERP business and student systems.

**Tareq Y. Al-Naffouri** obtained his M.S. degree in electrical engineering from Georgia Institute of Technology, Atlanta, in 1998, and his Ph.D. in electrical engineering from Stanford University in 2004. He was a visiting scholar at California Institute of Technology, Pasadena, January-August, 2005, and during the summer of 2006. He is currently a Fulbright scholar at the University of Southern California. He has held internships at NEC Research Labs, Tokyo, Japan in 1998, Adaptive Systems Lab, University of California at Los Angeles in 1999, National Semiconductor, Santa Clara, CA, in 2001 and 2002, and Beceem Communications Santa Clara, CA, in 2004. Dr. Al-Naffouri is currently an assistant professor in the Electrical Engineering Department, King Fahd University of Petroleum and Minerals, Saudi Arabia.

Dr. Al-Naffouri's research interests lie in the areas of adaptive and statistical signal processing and their applications to wireless communications and in multiuser information theory. He has over 50 publications in journal and conference proceedings. Dr. Al-Naffouri is the recipient of a 2001 best student paper award at the IEEE-EURASIP Workshop on Nonlinear Signal and Image Processing (NSIP) 2001 for his work on adaptive filtering analysis.

### Past Recipients

'06 Nordic Chapter  
'07 Spanish Chapter



**Bakr Hassan**

Vice President of Planning and  
Development

Ahlia University  
Kingdom of Bahrain

## IEEE Education Society Distinguished Chapter Leadership Award

*Presented by: Susan M. Lord*

*For exceptional contributions to the Society over a  
sustained period of time which have manifested  
themselves in the Gulf Chapter*

**Bakr Hassan** received a Ph.D. in mathematics education in 1979 from the University of Oregon. He also holds a B.S. and M.S. in mathematics from Arizona State University. He worked as a professor of mathematics at King Fahad University of Petroleum and Minerals (KFUPM) in Dhahran, Saudi Arabia. He was chairman of the Mathematical Sciences Department at KFUPM for more than six years. He also established a bilingual preschool at KFUPM where he was chairman of the board for 13 years. He was chosen by the Islamic Educational Scientific & Cultural Organization (ISESCO) in Rabat, Morocco as chairman of the Expert Committee to Develop Mathematics Curriculum for the Muslim Countries at the intermediate and secondary levels and authored seven books on this topic. He was also selected as a member of the National Committee (Ministry of Education) to review new mathematics texts at elementary and intermediate levels. He was the KFUPM representative on many national and international committees. He was a visiting professor/scholar at the University of Illinois in Champaign, Urbana; the Department of Applied Mathematics and Theoretical Physics at the University of Cambridge; and the Shell Center for Mathematical Education, University of Nottingham. During his tenure at KFUPM, he was chairman and member of many standing and ad-hoc committees and published several books and articles in the area of mathematics education.

In 1993, he worked at Saudi Aramco Oil Company in Dhahran, Saudi Arabia. He was initially in charge of technical training for computers and communications; he later worked in information and technology planning as a technology consultant. He championed preparing an IT workforce for the future and was in charge of the IT Specialist Development Program. He was a member of the Long-Term Comprehensive Plan for Science & Technology Team in Saudi Arabia. He is currently vice president of planning and development at Ahlia University, the first private university in the Kingdom of Bahrain.

He is an active community member. He is an IEEE senior member and chairman of the IEEE Education Society in the Gulf/Saudi Arabia. The Saudi chapter won the best 2006 chapter award for small/medium chapters in Region 8. He is also a member of the Saudi Computer Society, where he held several positions. He is also a member of the Arab Thought Forum and the Gulf Development Forum.



**Edmundo Tovar**  
Associate Dean for Quality and  
Strategic Planning  
Universidad Politécnica de  
Madrid (Spain)

**Past Recipients**

- '06 Michael E. Auer  
Manuel Castro
- '07 Carlos Rueda Artunduaga  
Oliver K. Ban

## IEEE Education Society Distinguished Chapter Leadership Award

*Presented by: Susan M. Lord*

*For exceptional contributions to the Society over a sustained period of time which have manifested themselves in the Spanish Chapter*

**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 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 in educational projects, managing several in the context of the European Higher Education Area. He is Associate Dean for Quality and Strategic Planning in the Computing School of the Universidad Politécnica de Madrid. In this position, he is in charge of training for academic staff and introduction of innovative solutions, including new pedagogies; new approaches that improve student learning of technical skills and cultural skills, and improved methods of blended learning.

He is leader of an innovation group in education in the Universidad Politécnica de Madrid that addresses topics such as interactive techniques for learning, learning via discovery or project work, tools for formative and summative assessment, or creation of learning objects.

Author of more than 40 papers in engineering education, and member of several program committees, he has served as a European co-chair for several Frontiers Education Conferences (FIE) and is a member of the IEEE RITA editorial committee.

He is an IEEE senior member, past chairman of the Spanish chapter and, as at-large member of the administrative committee of the IEEE Education Society; he is currently chair of the Distinguished Lectures Program for the Education Society.



**David L. Soldan**

Professor  
Electrical and Computer  
Engineering  
Kansas State University

**Past Recipients**

'05 Marion O. Hagler  
Burks Oakley II  
'06 Ted E. Batchman  
David A. Conner

## IEEE Education Society Distinguished Member Award

*Presented by: Susan M. Lord*

***For contributions to engineering education through  
excellence in teaching and administration and for  
leadership and service in professional societies***

**David L. Soldan** is professor of electrical and computer engineering at Kansas State University. He served as Head of the KSU EECE Department from 1989 to 2004. He currently serves as an ABET Engineering Accreditation Commission Executive Committee member. He has served on the IEEE Education Society Adcom and has been the IEEE Computer Society representative to the Frontiers in Education Conference Steering Committee. He served as FIE co-program chair in 1995 and 1998 and received the Ronald Schmitz Outstanding Service award from FIE in 2001. Dr. Soldan served as president of the Electrical and Computer Engineering Department Heads Association in 2002-03 and was a Board of Directors member for seven years. He chaired the Computer Engineering Curriculum Committee of the Joint IEEE Computer Society/ACM Computing Curriculum Taskforce that published the first model curriculum for computer engineering in 2005. The Computer Society recognized this with an Outstanding Contribution Award. He serves on the Eta Kappa Nu Board of Governors.

Dr. Soldan is a fellow of the Institute of Electrical and Electronic Engineers and a member of Eta Kappa Nu, Sigma Tau, Phi Kappa Phi, and the American Society for Engineering Education. He is the faculty advisor to Eta Kappa Nu and the trustee of the Kansas State University Amateur Radio Club. He received the 2006 Robert M. Janowiak Outstanding Leadership and Service Award from the Electrical and Computer Engineering Department Heads Association.

Dr. Soldan has worked in the areas of digital signal processing and adaptive filtering, computer networking, digital systems testing, computer systems reliability, manufacturing automation, and wireless communications. He has been active in computer engineering curriculum development and teaches introductory and advanced logic design classes and a senior-level computer architecture class.



**James J. Sluss, Jr.**  
 Morris R. Pitman Professor and  
 Director  
 School of Electrical & Computer  
 Engineering  
 University of Oklahoma

### **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

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

*Presented by: Susan M. Lord*

***For contributions to the Education Society in program  
 development and financial management***

**James J. Sluss, Jr.**, is the Morris R. Pitman Professor and director of the School of Electrical and Computer Engineering at the University of Oklahoma. He is currently serving his fourth year as treasurer of the IEEE Education Society. Prior to being elected treasurer, he served two years as chair of the Society's Finance Committee and has served on the Administrative Committee since 2000. He was the Society's program co-chair for FIE 2007. He was chair of the Benjamin J. Dasher Award Selection Committee for FIE 2002 and served as the Society's representative on that committee for FIE 2003. He served as CD supplement editor for the IEEE *Transactions on Education* from 1999 to 2001.

He received a B.S. in physics in 1984 from Marshall University, and an M.S. and Ph.D. in electrical engineering in 1986 and 1989, respectively, from the University of Virginia. His current research interests are in the areas of three-dimensional displays, optical communications, photonics, and intelligent transportation systems. He has been awarded seven U.S. patents, has authored/co-authored over 90 journal and conference publications, and has been principal/co-principal investigator on over \$11 million in sponsored research grants and contracts.

'04 Trond Clausen  
 '05 J. David Irwin  
     Rodney J. Soukup  
 '06 Robert A. Reilly  
 '07 David V. Kerns, Jr.





**Cheryl B. Schrader**  
Dean of the College of  
Engineering  
Professor of Electrical and  
Computer Engineering  
Boise 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 Jokors  
'03 Joanne Bechta Dugan  
'04 Jennifer L. Welch  
'06 Eve A. Riskin  
'07 Bonnie Heck Ferri

## **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***

**Cheryl B. Schrader** became the dean of Boise State University's College of Engineering and Professor of Electrical and Computer Engineering after twenty years of leadership in academia and industry, including McDonnell Douglas Astronautics Company, University of Texas at San Antonio, Rice University, and Chimera Research. She has authored more than 80 technical publications in the areas of systems and control, robotics, and intelligent systems, with biomedical, networking and aircraft applications. Her grant and contract funding exceeds seven million dollars.

Dr. Schrader received the Exemplary Online Course Award from WebCT and was senior fellow with the Texas Higher Education Coordinating Board. Other awards include the 2002 Engineering Excellence Award from Steven Myers & Associates for excellence in engineering, 40 Under 40 Rising Stars Award from the San Antonio Business Journal for leadership, career success and community involvement, and 2005 Idaho Women Making History Award. In 2005 the White House presented Dr. Schrader with The Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring for an enduring, strong and personal commitment to underrepresented engineering students and faculty.

Dr. Schrader currently serves on the board of directors for the Discovery Center of Idaho and as advisor to Highway 12 Ventures. She is past president of the Institute of Electrical and Electronics Engineers (IEEE) Control Systems Society, a professional organization with 9,000 members worldwide. For her many contributions to the Society, she recently received its Distinguished Member Award. She is a member of five societies of the IEEE, American Society for Engineering Education, and the Society of Women Engineers.

Dr. Schrader completed her Ph.D. and M.S. degrees in control systems at the University of Notre Dame in 1990 and 1987, respectively, and received her B.S. degree in electrical engineering with high distinction in 1984 from Valparaiso University, where she was an honors college graduate.



**Kathleen E. Wage**  
Associate Professor  
Electrical and Computer  
Engineering  
George Mason University

### **Past Recipients**

'04 Parham Aarabi  
'05 John R. Buck  
'06 Lisa G. Huettel  
'07 Susan C. Hagness

## **IEEE Education Society Mac Van Valkenburg Early Career Teaching Award**

*Presented by: Susan M. Lord*

***For inspiring classroom instruction and influential leadership in signal processing education research***

**Kathleen E. Wage** received a B.S. degree in electrical engineering from the University of Tennessee, Knoxville, in 1990, and her S.M., E.E., and Ph.D. degrees in electrical engineering from the Massachusetts Institute of Technology/Woods Hole Oceanographic Institution Joint Program in 1994, 1996, and 2000, respectively.

Since 1999, she has been a faculty member in the Electrical and Computer Engineering Department at George Mason University (GMU), where she is currently an associate professor. Her research interests include signal processing, adaptive arrays, and underwater acoustics. She has participated in several long-range propagation experiments as a part of the North Pacific Acoustic Laboratory project. In addition to ocean signal processing, Dr. Wage is interested in new pedagogical methods and educational assessment. In collaboration with John Buck she has developed the Signals and Systems Concept Inventory (SSCI), a standardized exam designed to measure conceptual understanding of linear systems. As of 2008, instructors at 28 schools have administered the SSCI to over 1,800 students. The SSCI project has been funded by the National Science Foundation, first through a grant to the Foundation Coalition and later by the Division for Undergraduate Education's Assessment of Student Achievement program.

Dr. Wage has received a number of research awards and fellowships, including an Office of Naval Research (ONR) Young Investigator Award in 2005 and an ONR Ocean Acoustics Entry-Level Faculty Award in 2002. She was a Tau Beta Pi and Clare Boothe Luce Fellow (1990-1991) and an Armed Forces Communications and Electronics Association Postdoctoral Fellow (1999-2001). In 2004 Dr. Wage was honored with an Outstanding Teaching Award from GMU's Volgenau School of Information Technology and Engineering. As a graduate student she received the Harold L. Hazen Teaching Award from the MIT EECS department (1994).