

CONFERENCE AWARDS BANQUET

35th Annual FRONTIERS IN EDUCATION CONFERENCE

**PEDAGOGIES AND
TECHNOLOGIES FOR
THE EMERGING
GLOBAL ECONOMY**



**Friday, October 21, 2005
The Westin Indianapolis
Indianapolis, Indiana**

Sponsors



FRONTIERS IN EDUCATION CONFERENCE

**Pedagogies and Technologies for the
Emerging Global Economy**

CONFERENCE AWARDS BANQUET

Friday, October 21, 2005

FIE 2005 General Co-Chairs..... William C. Oakes
David R. Voltmer
Charles F. Yokomoto

FIE 2005 Awards Chair..... Joseph L. A. Hughes

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ASEE Educational Research and Methods Division

Larry G. Richards, Chair
Heidi A. Diefes-Dux, FIE 2005 Program Co-Chair
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William C. Oakes, FIE Steering Committee Member

IEEE Computer Society

Gerald L. Engel, President
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Ann Q. Gates, FIE Steering Committee Member
Jane C. Prey, FIE Steering Committee Chair
Ann E. Sobel, FIE Steering Committee Member

IEEE Education Society

Daniel M. Litynski, President
Susan M. Lord, FIE 2005 Program Co-Chair
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John A. Orr, FIE Steering Committee Member
James A. Roberts, FIE Steering Committee Member

NAE Center for the Advancement of Scholarship on Engineering Education (FIE Cooperative Affiliate)

Norman L. Fortenberry, Director

The Frontiers in Education Conference would like to thank Microsoft Corporation for sponsoring the 2005 Awards Banquet, where the three sponsoring societies recognize the outstanding work and contributions of our peers. The Microsoft Corporation is well known for its contributions to higher education and has been a corporate partner with FIE for several years. We gratefully acknowledge their support and hope that this relationship with FIE will continue long into the future. The FIE 2005 planning committee wishes to acknowledge the efforts of Jane Prey, chair of the FIE steering committee, and John Spencer from Microsoft Research in bringing this sponsorship to the conference.

AWARDS CEREMONY AGENDA

Moderator: Joseph L.A. Hughes, 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: Larry G. Richards, Chair
ASEE ERM Division

IEEE Computer Society Taylor L. Booth Education Award

Presenter: Deborah M. Cooper, 2006 President
IEEE Computer Society

IEEE Education Society Achievement Award

Presenter: Daniel M. Litynski, President
IEEE Education Society

IEEE Education Society Distinguished Member Awards

Presenter: Daniel M. Litynski, President
IEEE Education Society

IEEE Education Society Mac Van Valkenburg Early Career Teaching Award

Presenter: Daniel M. Litynski, President
IEEE Education Society

IEEE Education Society Meritorious Service Awards

Presenter: Daniel M. Litynski, President
IEEE Education Society

IEEE Education Society *Transactions on Education* Best Paper Award

Presenter: Daniel M. Litynski, President
IEEE Education Society

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award

Presenter: Joseph L.A. Hughes
FIE 2004 General Chair

Frontiers in Education Conference Helen Plants Award

Presenter: Eric P. Soulsby, Co-Chair
FIE 2004 Helen Plants Award Committee

Frontiers in Education Conference Ronald J. Schmitz Award

Presenter: James A. Roberts, Chair
FIE Ronald J. Schmitz Award Committee

AWARDS COMMITTEE CHAIRS

Frontiers in Education Conference

FIE Benjamin J. Dasher Best Paper Award.....	Ronald L. Miller
FIE Helen Plants Award	Michael J. Pavelich
	Eric P. Soulsby
FIE Ronald J. Schmitz Award	James A. Roberts

ASEE Educational Research and Methods Division

ASEE ERM Division Distinguished Service Award.....	Eric P. Soulsby
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ASEE Electrical and Computer Engineering Division

Hewlett-Packard Frederick Emmons Terman Award	Keshab K. Parhi
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IEEE Computer Society

IEEE CS Taylor L. Booth Education Award	James T. Cain
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IEEE Education Society

IEEE ES Achievement Award.....	Lyle D. Feisel
IEEE ES Distinguished Member Award	Joseph L.A. Hughes
IEEE ES Mac Van Valkenburg Early Career Teaching Award....	Burks Oakley II
IEEE ES Meritorious Service Award	Edwin C. Jones, Jr.
IEEE ES <i>Transactions on Education</i> Best Paper Award.....	David A. Conner



Ali H. Sayed
Professor and Chair
Electrical Engineering
University of California,
Los Angeles

ASEE ECE Division Hewlett-Packard Frederick Emmons Terman Award

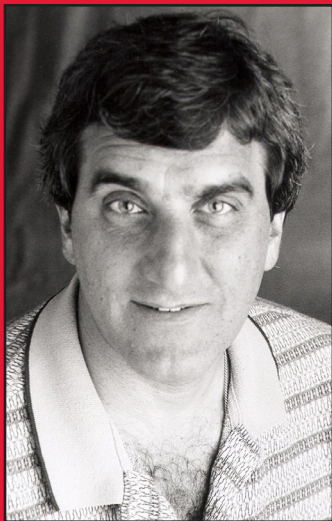
Presented by: Wayne C. Johnson

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

Ali. H. Sayed is Professor and Chairman of Electrical Engineering at UCLA, where he directs the Adaptive Systems Laboratory (www.ee.ucla.edu/asl). He has published widely in the areas of adaptive filtering, estimation theory, and signal processing for communications with over 200 articles and 4 books. He is the author of the textbook *Fundamentals of Adaptive Filtering* (Wiley, NY, 2003).

He is a Fellow of IEEE and serves as the Editor-in-Chief of the *IEEE Transactions on Signal Processing*. His research has received several recognitions including the 1996 IEEE D.G. Fink Prize, the 2002 Best Paper Award from the IEEE Signal Processing Society, the 2003 Kuwait Prize, and two Best Student Paper Awards at international meetings (1999, 2001).

He currently serves as a Distinguished Lecturer of the IEEE Signal Processing Society. He is also a member of the Publications and Awards Board of the IEEE Signal Processing Society, and serves as General Chairman of ICASSP 2008, the premier conference in the field of signal processing.



Daniel D. Budny
Associate Professor, Civil
Engineering
Director, Freshman
Engineering Program
University of Pittsburgh

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

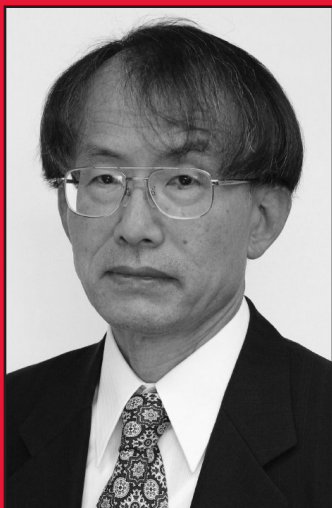
ASEE ERM Division Distinguished Service Award

Presented by: Larry G. Richards

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

Dan Budny holds a joint appointment as Associate Professor in the School of Civil Engineering and as the Director of the Freshman Engineering Program at the University of Pittsburgh. His research area is in the development of programs that assist the entering freshman student either on a standard track or an academically disadvantaged student by providing counseling and cooperative learning environments for the standards in their first and second semester freshman engineering courses. He has numerous publications in this and other engineering education areas.

He is very active in ASEE within the Freshman Programs and the Educational Research and Methods Divisions, and is on the ASEE/IEEE Frontiers in Education Conference Board and a past member of the ASEE board of directors. Because of his accomplishments, he has also been asked to give a number of teaching workshops on and off his campus.



Tadao Nakamura
Professor
Computer and
Mathematical Sciences
Tohoku University

Past Recipients

- '89 J. T. Cain
- '90 C. V. Ramamoorthy
Rasiv Ramnath
- '91 Edward J.
McCluskey
- '92 C. L. Liu
- '93 Melvin A. Breuer
- '94 David Gries
- '95 Harold Abelson
- '96 Edward S. Davidson
- '97 Sartaj K. Sahni
- '98 Tosiya L. Kunii
- '99 Harold S. Stone
- '00 Prithviraj Banerjee
- '01 James F. Kurose
- '02 Abraham
Silberschatz
- '03 Eugene H. Spafford

IEEE Computer Society 2004 Taylor L. Booth Education Award

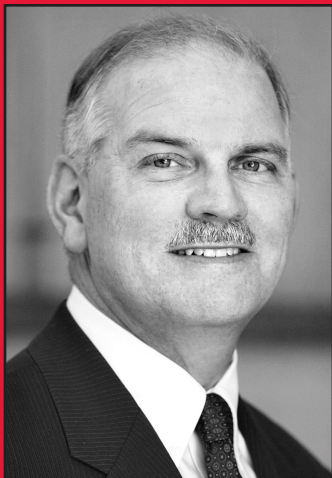
Presented by: Deborah M. Cooper

“For leadership in the reform of advanced information science education and for important and substantive contributions to information science and computer engineering education in Japan.”

Tadao Nakamura received his PhD in Electronics using Computer Aided Design in 1972 from Tohoku University. Dr. Nakamura is currently a Professor of the Department of Computer and Mathematical Sciences at Tohoku University. He was founding chair of the department in 1993. Prior to that he was a Professor of the Department of Mechanical (Machine Intelligence and Systems) Engineering at Tohoku University and a Visiting Lecturer in the Department of Information Science at the University of Tokyo. From 1994–98 he was a Visiting Professor of Electrical Engineering at Stanford University.

His recent research interests are in computer architecture, especially pipelining-based microarchitecture, and low-power concepts in chips, in general.

He has been Organizing Committee Chair of the COOL Chips conference series fully sponsored by the IEEE Computer Society. Dr. Nakamura was elected Fellow of the IEEE in 2002 for contributions to pipelined computer architecture and computer engineering education.



H. Vincent Poor

George Van Ness Lothrop
Professor in Engineering
Director, Center for
Innovation in
Engineering Education
Princeton University

Past Recipients

- '79 Lawrence P. Grayson
- '80 Demetrius T. Paris
- '81 Lindon E. Saline
- '82 Anthony B. Giordano
- '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

IEEE Education Society Achievement Award

Presented by: Daniel M. Litynski

***“For outstanding contributions to
engineering education.”***

H. Vincent Poor is the George Van Ness Lothrop Professor in Engineering at Princeton University, where he is engaged in teaching and research in wireless communications and related fields. He is also the founding Director of the Princeton Center for Innovation in Engineering Education.

Dr. Poor was educated at Auburn University and at Princeton, receiving his Ph.D. in EECS from Princeton in 1977. From 1977, prior to joining the Princeton faculty in 1990, he was on the faculty of the University of Illinois at Urbana–Champaign. He has also held visiting appointments at a number of other universities, including recently at Imperial College, Stanford, and Harvard.

Dr. Poor is known as a gifted teacher and mentor of students at both undergraduate and graduate levels. In recent years he has developed an undergraduate course, “The Wireless Revolution,” which uses the paradigm of wireless technology to teach students from all academic backgrounds about the social, political, economic and technical aspects of high technology. This course has become one of the largest and most diverse courses offered at Princeton, and the model has been emulated at other leading universities. He is also the author of the widely used graduate textbook, *An Introduction to Signal Detection and Estimation*, for which he received the ASEE Terman Award in 1992. Other recent recognition of his educational contributions include the 2001 IEEE Graduate Teaching Award, the 2002 NSF Director’s Award for Distinguished Teaching Scholars, the 2003 Princeton SEAS Distinguished Teacher Award, the 2004 IEEE EAB Major Educational Innovation Award, and the 2005 IEEE James H. Mulligan, Jr. Education Medal. In 2003, he was elected a Fellow of the ASEE.

Dr. Poor is also known for his pioneering research in the fields of communications and signal processing. He is the author of more 600 research publications, including eight books. He is a member of the National Academy of Engineering and the American Academy of Arts & Sciences, and is Fellow of the IEEE, the Institute of Mathematical Statistics, the Optical Society of America, and other learned societies.



Marion O. Hagler
Professor and Robert D.
Guyton Chair
Electrical and Computer
Engineering
Mississippi State
University

IEEE Education Society Distinguished Member Award

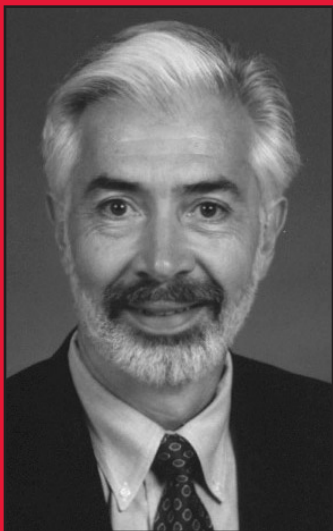
Presented by: Daniel M. Litynski

“For outstanding service to the Education Society as an officer and society president, for service to IEEE and the profession, and for significant contributions in electrical and computer engineering education.”

Marion O. Hagler is currently professor of electrical and computer engineering at Mississippi State University and holds the Robert D. Guyton Chair in Teaching Excellence. He received the B.A. and B.S.E.E. degrees from Rice University, Houston, TX, in 1962 and 1963, respectively, and the M.S.E.E. and Ph.D. degrees from the University of Texas, Austin, in 1964 and 1967, respectively. He previously was P. W. Horn Professor of Electrical and Computer Engineering at Texas Tech University and Senior Associate Dean of the College of Engineering at Texas Tech University. He is a Fellow of the IEEE, the Optical Society of America, and the Society for Design and Process Science.

Hagler has a distinguished record of service to the Education Society, having served as both a member of the Administrative Committee and as President. He has been Chair of the IEEE Awards Board, Chair of the Life Long Learning Council of the IEEE Educational Activities Board, and Chair of the Electronic Products and Services Committee, a joint committee of the IEEE Technical Activities Board and the IEEE Publications, Products, and Services Board. He also served as President of the National Electrical Engineering Department Heads Association and as Chair of the Steering Committee for the Frontiers in Education Conference.

During 1995–96, Hagler was the Kyushu Electric Power Company Visiting Professor in the Department of Electrical Engineering and Computer Science at Kumamoto University in Kumamoto Japan. He served as the guest editor for the August 1996 *IEEE Transactions on Education* special issue on the application of information technologies to engineering and science education.



Burks Oakley II
Professor
Electrical and Computer
Engineering
University of Illinois at
Urbana–Champaign &
Associate Vice President
for Academic Affairs
University of Illinois

IEEE Education Society Distinguished Member Award

Presented by: Daniel M. Litynski

“For more than ten years of outstanding service to the Education Society and for significant contributions in computer-assisted and online engineering education.”

Burks Oakley II is associate vice president for academic affairs at the University of Illinois and director of University of Illinois Online. He also is a professor in the Department of Electrical and Computer Engineering at the University of Illinois–Urbana-Champaign (UIUC).

Through his innovative use of technology in teaching, Oakley has earned a national reputation as a practitioner and promoter of online education. In the past six years he has given more than 200 invited talks at national conferences and on university campuses. His other major projects include the Illinois Online Network and the Illinois Virtual Campus.

Oakley holds a BS degree from Northwestern University and MS and PhD degrees from the University of Michigan. He was a program co-chair for the FIE conferences in 1997 and 2002 and he initiated the FIE New Faculty Fellows program in 1997.

Oakley has received numerous awards for his teaching and innovative use of technology in education, including the Luckman Distinguished Undergraduate Teaching Award from UIUC in 1993, the Outstanding Teacher Award from the ASEE IL/IN Section in 1993, the Benjamin Dasher Award from FIE in 1994, the Helen Plants Award from FIE in 1995, the Educom Medal in 1996, the IEEE Educational Activities Board Major Educational Innovation Award in 1996, the Meritorious Service Award from the IEEE Education Society in 1998, and the IEEE Third Millennium Medal in 2000. He is a fellow of the IEEE and the ASEE and a former vice president of ASEE.



John R. Buck

Associate Professor
Department of Electrical
and Computer
Engineering &
School for Marine Science
and Technology
University of
Massachusetts
Dartmouth

Past Recipient

'04 Parham Aarabi

IEEE Education Society Mac Van Valkenburg Early Career Teaching Award

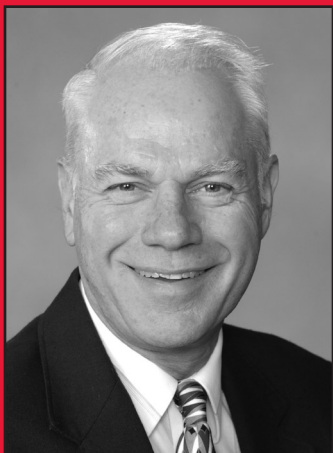
Presented by: Daniel M. Litynski

“For outstanding contributions to electrical and computer engineering education, including inspirational classroom teaching and the development of exemplary educational materials.”

John R. Buck holds a joint appointment at the University of Massachusetts Dartmouth as an associate professor in the Department of Electrical and Computer Engineering and in the School for Marine Science and Technology. He received S.B. degrees in electrical engineering and humanities (English literature) from the Massachusetts Institute of Technology (MIT) in 1989, and subsequently received S.M., E.E., and Ph.D. degrees from the MIT/Woods Hole Oceanographic Institution (WHOI) Joint Program in Ocean and Electrical Engineering in 1991, 1992, and 1996, respectively.

Dr. Buck spent 2003–2004 in Australia as a Fulbright Senior Scholar, hosted by the Defence Science and Technology Organisation and Sydney University. His research awards include an ONR Young Investigator award in 2000 and a NSF CAREER award in 1998. As a graduate instructor, he received the MIT EECS Department's Carlton E. Tucker Teaching Award in 1991 and the Goodwin Medal, MIT's highest honor for teaching by a graduate student, in 1994.

Dr. Buck's research interests include signal processing, underwater acoustics, and marine mammal bioacoustics. His textbook publications include *Discrete-Time Signal Processing, Second Edition* by Oppenheim and Schaffer with Buck (Prentice-Hall, 1999) and *Computer Explorations in Signals and Systems Using Matlab (TM), Second Edition*, by Buck, Daniel and Singer (Prentice-Hall, 2001). In addition to publications in scientific journals, his research has been the subject of reports on *National Public Radio's Morning Edition*, *New Scientist*, *Discovery Magazine*, and the *Australian Broadcasting Corporation's Radio National Science Show*.



J. David Irwin

Earle C. Williams Eminent
Scholar and Department
Head

Electrical and Computer
Engineering
Auburn University

Past Recipients

- '78 Warren B. Boast
- '79 Joseph M. Biedenbach
- '80 Edwin C. Jones, Jr.
- '81 Lyle D. Feisel
- '82 Roy H. Mattson
- '83 Robert F. Fontana
- '84 Gerald R. Peterson
- '85 Luke H. Noggle
- '86 James A. Mulligan
Sidney S. Shamis
- '87 Thomas K. Gaylord
- '88 Robert F. Cotellessa
- '89 E. Ben Peterson
- '90 Darrell L. Vines
- '91 Victor K. Schutz
- '92 William K. LeBold
- '93 Frank S. Barnes
- '94 Patricia D. Daniels
- '95 Robert W. Ritchie
- '96 Marion O. Hagler
Donald E. Kirk
- '97 Robert Sullivan
- '98 Burks Oakley II
- '99 Gerald L. Engel
- '00 Ted E. Batchman
- '01 William E. Sayle II
- '02 James R. Rowland
- '03 David A. Conner
- '04 Trond Clausen

IEEE Education Society Meritorious Service Award

Presented by: Daniel M. Litynski

“For meritorious service to the Education Society, for leadership as president, and for mentoring many members of the society.”

J. David Irwin is the Earle C. Williams Eminent Scholar and Department Head of Electrical and Computer Engineering at Auburn University. He has served in a number of education-related positions, including Chair of both the Southeastern Association of Electrical Engineering Department Heads and the Electrical Engineering Department Heads Association (the forerunner to NEEDHA and ECEDHA). He has served as President of the IEEE Education Society, an IEEE AdHoc visitor for ABET accreditation teams, a member of the IEEE Educational Activities Board, Accreditation Coordinator for IEEE, a member of the Board of Directors of the IEEE Press, and a member of the IEEE Education Society's McGraw Hill/Jacob Millman Award Committee. He is currently Vice President and member of the Board of Governors of Eta Kappa Nu, the ECE Honor Society, and Chair of the IEEE Undergraduate and Graduate Teaching Award Committee.

He is the author or co-author of number of publications that serve the education community, including sixteen textbooks that span a wide spectrum of engineering subjects. He is also the Editor-in-Chief of a large Handbook.

His awards include the IEEE Region III Outstanding Engineering Educator, a Meritorious Service Citation from the IEEE Educational Activities Board, the IEEE Education Society's Achievement Award, the IEEE Education Society's McGraw Hill/Jacob Millman Award, the IEEE Undergraduate Teaching Award, and the American Society for Engineering Education (ASEE) ECE Distinguished Educator Award. He is a Fellow of ASEE and a Life-Fellow of IEEE.



Rodney J. Soukup
Henson Professor
Electrical Engineering
University of Nebraska—
Lincoln

IEEE Education Society Meritorious Service Award

Presented by: Daniel M. Litynski

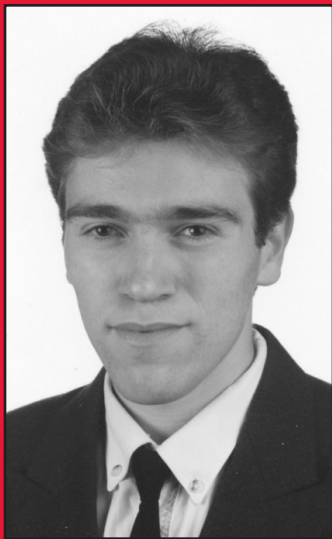
“For meritorious service to the Education Society, for service as treasurer, and for mentoring many members of the society.”

Rodney J. Soukup is currently Henson Professor of Electrical Engineering, an honor he received on July 1, 1998. He received the BS, MSEE, and PhD degrees from the University of Minnesota. After receiving the Ph.D. degree in 1969, Dr. Soukup went to work at Sperry Rand Univac in St. Paul, MN where he worked for three years on thin film hybrid microelectronic circuits and thin film devices. He began his academic career in 1972 at the University of Iowa as an Assistant Professor. He moved to the University of Nebraska in 1976 as an Associate Professor and was promoted to Professor in 1980. He became Department Chairman in 1978, a position he held until June 30, 2000.

He is a past President of the National Electrical Engineering Department Heads Association (NEEDHA, now ECEDHA) and of the Central States Electrical Engineering Department Heads Association (CSEEDHA), past Chairman of the IEEE Education Society Millman Awards Committee and of the ASEE Terman Awards Committee. He was also an Accrediting Board for Engineering and Technology (ABET) reviewer. He was elected Fellow of the IEEE in 1993. In 1998 he won the NEEDHA Outstanding Service Award and, in 2000, the CSEEDHA Outstanding Service Award.

Dr. Soukup was elected Treasurer of the IEEE Education Society in 1998 and re-elected the following five years. Prior to that he was appointed as a member of the IEEE Education Society Administrative Committee in 1991 and elected to a three year term in 1992. Additional IEEE activities include being a representative of the IEEE Education Society to the IEEE Defense R&D Committee in 1988 and serving as a member of the IEEE Educational Activities Board, 1991 to 1992.

His current research interests are in thin film semiconductor alloys (Si-Ge, Ge-C, Si-C-Ge) for solar cells and other electro-optic applications and BaSrTiO₃ for tunable antenna applications, all deposited using a unique hollow cathode deposition technique.



Antonio J. Lopez-Martin

Associate Professor
Public University of
Navarra &
Adjunct Professor
New Mexico State
University

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 Kimberly E. Newman
James O. Hamblen
Tyson S. Hall
- '04 M. Brian Blake
- '04 Russell L. Pimmel

IEEE Education Society *Transactions on Education* Best Paper Award

Presented by: Daniel M. Litynski

“Teaching Random Signals and Noise: An Experimental Approach,” Vol. 47, No. 2, May 2004, Pages 174–179.

Antonio J. Lopez-Martin received M.S. and Ph.D. degrees (with honors) in electrical engineering from the Public University of Navarra, Pamplona, Spain, in 1995 and 1999, respectively. He has been visiting professor with the New Mexico State University, Las Cruces, NM, and invited researcher with the Swiss Federal Institute of Technology (ETH), Zurich, Switzerland. Since 2003 he is Associate Professor with the Public University of Navarra and Adjunct Professor with the New Mexico State University. He also serves as Computer Systems Technologist for the Public University of Navarra since 1998. His research interests include mixed-signal VLSI, analog and digital signal processing, communication systems, and innovation in engineering education.

Dr. Lopez-Martin has authored a textbook (in Spanish) on Communication Systems and more than 150 peer-reviewed contributions in books, journals, and conferences, some of them ranked among the top 100 most accessed documents for the month in IEEE Xplore. He holds two international patents on electronic coin selectors, leads various research projects, and is consultant for local companies. He has been leading a project aimed to the development of software tools for distance learning at the Public University of Navarra in 2002–04, and has created educational software currently in use in various universities worldwide.

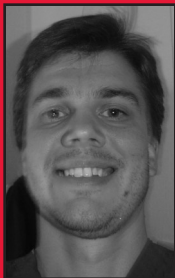
His recent awards include an Outstanding Service Award of the New Mexico State University in 2002 in appreciation for excellence in teaching, research, and contribution in the VLSI program, and the 2004 Award of the European Center of Industry and Innovation (CEIN) for excellence in transfer of research results to industry. He is currently serving on various technical program committees, is reviewer for 7 IEEE publications, and is program evaluator for the Spanish National Research Agency (ANEP).



Matthew W. Ohland
Associate Professor
General Engineering
Clemson University



Guili Zhang
PhD Candidate
Educational Psychology
University of Florida



Brian Thorndyke
Postdoctoral Fellow
Radiation Oncology
Stanford University School
of Medicine

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award

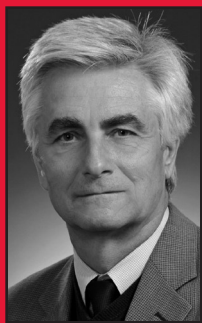
Presented by: Joseph L.A. Hughes

***“Grade-Point Average, Changes of Major,
and Majors Selected by Students Leaving
Engineering,” FIE 2004, Session TIG.***

Matthew W. Ohland is an Associate Professor in Clemson University’s general engineering program and the national President of the Tau Beta Pi engineering honor society. He studies exclusively engineering education and has extensive experience managing collaborative projects and educational experiments as PI or Co-PI of more than \$5 million in research. His current projects include studying engineering student development using a longitudinal database, designing a peer evaluation instrument, and using of active and collaborative learning in Statics and Dynamics. Formerly, Ohland was assistant director of the NSF-sponsored SUCCEED engineering education coalition and an NSF postdoctoral fellow. He received a B.A. in religion and a B.S. in engineering in 1989 from Swarthmore College. He earned two M.S. degrees from Rensselaer Polytechnic Institute (mechanical engineering, 1991; materials engineering, 1992). He received his Ph.D. in civil engineering with a graduate minor in education from the University of Florida in 1996.

Guili Zhang is a Ph.D. candidate in Research and Evaluation Methodology in the Department of Educational Psychology at the University of Florida. She received a B.A. in British and American Language and Literature at Shandong University, China, and a Master of Education degree at Georgia Southern University. She served as a staff development specialist and researcher at Jinan District Education Commission, China, and took part in the writing and revision of the National Unified Text Books and Teacher’s Reference Books. She published extensively and won numerous awards at the national level in the area of educational research in China. She is currently the statistician for the Southeastern Universities and Colleges Coalition for Engineering Education (SUCCEED). The research team of which she is a member won the Best Paper Award by the American Society for Engineering Education in 2003 and the Best Paper Award by the Frontiers in Education in 2004.

Brian Thorndyke is a postdoctoral fellow in the Department of Radiation Oncology at Stanford University Medical School. His current research interests include aspects of both imaging and treatment planning in radiation therapy, involving the development of novel algorithms for PET/CT image acquisition and stereotactic radiosurgery. Prior to his appointment at Stanford, Brian worked at the University of Florida on the maintenance and statistical analysis of the Southeastern University and College Coalition for Engineering Education (SUCCEED) longitudinal database. He holds BS and MSC



Timothy J. Anderson
Professor, Chemical
Engineering
Associate Dean of Research
and Graduate Programs
University of Florida

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. Feisel
- '83 Davood Tashayyod
Banu Onaral
James M. Trosino
- '84 Billy V. Koen
- '85 Billy 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
Robert York
- '90 Cindy A. Greenwood
- '91 Robert Whelchel

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

degrees in Physics from the University of Montreal, as well as the MS degree in Computer and Information Science from the University of Florida. He earned his PhD in Chemical Physics from the University of Florida, studying the interplay between classical and quantum dynamics in small molecule collisions.

Tim Anderson joined the faculty at the University of Florida after receiving his education in chemical engineering from Iowa State University (B.S.) and the University of California, Berkeley (M.S. & Ph.D.). He served as department chair (1991 to 2003) and is now Associate Dean of Research and Graduate Programs. Professor Anderson has long been active in engineering education. He is editor of the *Chemical Engineering Education* journal and on the Editorial Advisory Board of *J. SMET Education*. In addition, he served as director of the NSF SUCCEED Engineering Education Coalition until its completion in 2003. Tim has over 65 publications and presentations in engineering education research. He has been honored with several education-related awards including the ConocoPhillips Lectureship and ASEE Union Carbide Lectureship Awards. His research interests are broadly in the field of advanced electronic and photonic materials processing. Tim has been recognized for his research accomplishments through several awards, including the Vanderbilt University Tis Lihiri Lectureship, Michigan/Michigan State Joint Lectureship, DOE Research Partnership Award, the AIChE Charles M. A. Stine Award, and the California Institute of Technology's W.N. Lacey Lectureship. Tim also spent his last sabbatical at the University of Grenoble as a Fulbright Senior Research Scholar. He has over 160 publications in his technical discipline and supervised 40 Ph.D. graduates. Prof. Anderson is on the editorial advisory boards of *J. Phase Equilibria* and *AIChE J.*

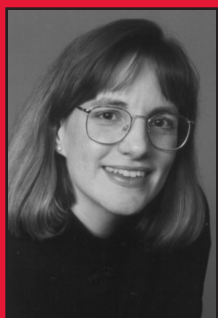
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|--|---|
| '92 William LeBold
Dan D. Budny | '98 A.B. Carlson
W.C. Jennings |
| '93 Daniel M. Hull
Arthur H. Guenther | P.M. Schoch |
| '94 Burks Oakley II
Roy E. Roper | '99 Wayne Burleson
Aura Ganz
Ian Harris |
| '95 Curtis A. Carver, Jr.
Richard A. Howard | '00 David W. Petr
Zeynep Dilli |
| '96 Val D. Hawks | Neil Goldman |
| '97 Edwin Kashy
Michael Thoennessen
Yihjia Tsai
Nancy E. Davis
Sheryl L. Wolfe | Lee Harper
Steven I. Marcus
Janet A. Schmidt
'03 Glenn W. Ellis
Gail E. Scordilis
Carla M. Cooke |



Susan M. Lord
Associate Professor of
Electrical Engineering
Department of Engineering
University of San Diego



Elizabeth A. Eschenbach
Department Chair and
Professor
Environmental Resources
Engineering
Humboldt State University



Alisha A. Waller
Managing Editor, AREE
CASEE/NAE

Frontiers in Education Conference Helen Plants Award

Presented by: Eric P. Soulsby

***“Best Non-Traditional Session at FIE 2004:
Feminist Frontiers.”***

Susan M. Lord received a B. S. with distinction in Electrical Engineering and Materials Science and Engineering from Cornell University and the M.S. and Ph.D. in Electrical Engineering from Stanford University. Her teaching and research interests include electronics, optoelectronic materials and devices, service learning, feminist pedagogy, and first year engineering courses. From 1993–1997, Dr. Lord taught at Bucknell University. She is currently an Associate Professor of Electrical Engineering at the University of San Diego (USD). She has been awarded NSF CAREER and ILI grants and named the 2004 USD Faculty Woman of Impact. Dr. Lord has worked at SPAWAR Systems Center, NASA Goddard Space Flight Center, AT&T, and General Motors. She is a member of the IEEE, ASEE, SWE, and Tau Beta Pi. She has served on the national administrative boards of the IEEE Education Society and the ASEE Educational Research and Methods (ERM) Division. She is a 2005 FIE program co-chair and 2006 FIE general co-chair.

Beth Eschenbach is department chair and professor of Environmental Resources Engineering at Humboldt State University. Beth left civil engineering as an undergraduate at UC Santa Cruz, and graduated with honors in mathematics and in psychology. She obtained her MS and PhD at Cornell in Environmental and Water Resources Systems Engineering. She completed a postdoc at the Center for Advanced Decision Support in Water and Environmental Systems (CADSWES) at UC Boulder. Beth's career goals include increasing the diversity of engineering students and improving education for all engineering students. Her work has addressed diversity in the classroom, incorporation of service learning, preparation of K–12 science instructors, and developing web tools for student peer assessment. Some of Beth's current projects are: an NSF CCLI project, an NSF planning project for the Collaborative Large-scale Engineering Analysis Network for Environmental Research, an AAUW project assessing the effectiveness of Expanding Your Horizon's Conferences and a water resources curriculum project using CADSWES software. She is the FIE 2006 Program Co-Chair. Beth enjoys singing and playing the piano with her 3-year-old daughter Jocelyn and throwing the Frisbee with her physicist husband Wes.

Alisha Waller started her teaching career at age 9, being paid to help a neighbor understand multiplication. She went on to earn a B.I.E. at Georgia Tech and a Ph.D. in Operations Research at Cornell. She has taught engineering, math, computer science, and teaching enrichment courses at Auburn, the University of Minnesota, and Macalester College, as well as presented workshops at a many other institutions. Alisha has been an active participant in FIE since 1991, both as a presenter and as a program chair. Currently, she is the Managing Editor



Eileen M. Cashman
Associate Professor
Environmental Resources
Engineering
Humboldt State University



Monica J. Bruning
Outreach and Recruitment
Director
College of Engineering &
Temporary Professor
College of Education
Iowa State 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

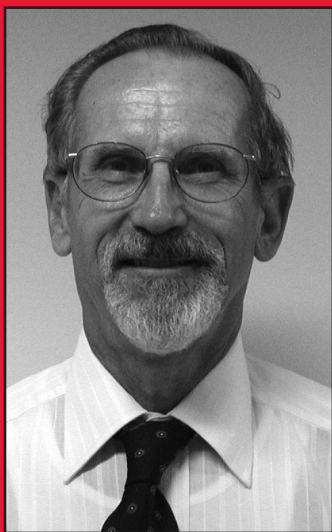
Frontiers in Education Conference Helen Plants Award (continued)

of the *Annals of Research on Engineering Education*, a web portal/journal whose goal is to advance research through communication. Her research passions include equity and diversity in STEM disciplines and qualitative research methodology.

Eileen M. Cashman is an Associate Professor of Environmental Resources Engineering at Humboldt State University. She is a graduate of Humboldt State University where she received her BS in Environmental Resources Engineering. Eileen has an MS degree in Land Resources and Energy Analysis and Policy and a Ph.D. in Civil and Environmental Engineering from the University of Wisconsin at Madison. Her current research interests include sediment transport, river hydraulics and engineering education. She has an on-going project in collaboration with Dr. Elizabeth Eschenbach to revitalize introductory engineering courses using a variety of new pedagogical approaches. Eileen is a member of the Faculty for the 21st Century, a faculty network sponsored by Project Kaleidoscope and the American Society for Engineering Education (Educational Research and Methods Division).

Monica J. Bruning is Director for Outreach and Recruitment in the College of Engineering and temporary professor in the College of Education at Iowa State University. She holds a B.S. in Education from North Dakota State University; M.P.A from University of Colorado; and Ph.D. in Educational Leadership & Policy from Iowa State University. She has directed student services functions with expertise in institutional planning, admissions, marketing, orientation/registration, information technology, financial aid/scholarships, and public relations. She has extensive K-12 STEM outreach experience including program development and evaluation. Her research areas include youth culture, feminist thought and critique of science, career awareness and STEM career exploration, qualitative research methodology, action research, and program evaluation/assessment. She has served on state, regional, and national advisory boards for college admission organizations and is a frequent presenter and active member of education, research, and STEM professional associations, and a consultant on engineering pipeline and workforce-related topics.

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|------------------------|-------------------------|
| '91 Troy E. Kostek | '97 Karl A. Smith |
| '92 Barbara M. Olds | Elizabeth A. Eschenbach |
| Ronald L. Miller | James D. Jones |
| '93 John C. Lindenlaub | '98 Alice Agogino |
| Alisha A. Waller | '99 Melinda Piket-May |
| '94 Billy V. Koen | Julie L. Chang |
| '95 Burks Oakley II | '03 William C. Oakes |
| Mark A. Yoder | |
| '96 Alisha A. Waller | |
| Edward R. Doering | |
| Mark A. Yoder | |



Robert J. Hofinger
Associate Professor
Electrical and Computer
Engineering Technology
Purdue University at
Columbus

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. Eisenstein
- '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

Frontiers in Education Conference Ronald J. Schmitz Award

Presented by: James A. Roberts

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

Robert J. Hofinger is an associate professor in the Electrical and Computer Engineering Department in the College of Technology at Purdue University. He received his BSEE and MSEE degrees from the Brooklyn Polytechnic Institute (now The Polytechnic University).

Before starting his academic career at Purdue University, he worked as an electrical engineer for over 30 years. His experience included work in the military/aerospace industry with LITCOM electronics, a division of LITTON Industries and RCA Astrospace where he designed digital circuitry for the decoding and control of hydrogen gas thruster engines on commercial telecommunication satellites; in the gasoline industry with GILBARCO, at the time an EXXON subsidiary, in the design of ultrasound underground metering systems and specialized switching power supplies for gasoline dispensers; in the electric metering industry with LANDIS & GYR, in the design of analog current dividing circuits for accurately measuring the in phase and quadrature phase currents for electronic watt-hour metering systems; and the automotive industry with DELCO Electronics (now DELPHI Electronics) in designing Electronic Control Modules (ECMs) for OPEL Motors, a General Motors European subsidiary.

He has been active in the American Society for Engineering Education (ASEE) for many years, serving as the program chair for the Instrumentation Division. He was elected to and has held all executive positions in the IL/IN section of the ASEE, where he is presently the Chair-Elect and Campus Representative. He has also held the office of treasurer of the Greensboro, N.C. chapter of the IEEE.