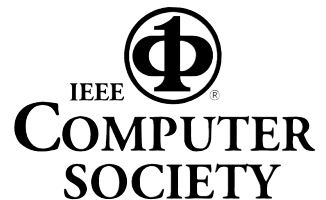




**31st Annual
Frontiers in Education
Conference Awards Banquet**

Reno, Nevada

October 13, 2001



The IEEE Education Society
The ASSEE Educational Research and Methods Division
The IEEE Computer Society

Award Coordinators

Awards and Recognition Coordinator David V. Kerns Jr.

Awards Committee Chairs

Frontiers in Education Conference

FIE Benjamin J. Dasher Best Paper Award Susan Lord

FIE Ronald J. Schmitz Award Larry Shuman

IEEE Education Society

IEEE ES Hewlett-Packard/Harriett B. Rigas Award Patricia Daniels

IEEE ES McGraw-Hill/Jacob Millman Award James R. Rowland

IEEE ES Meritorious Service Award Edwin C. Jones Jr.

IEEE ES Achievement Award Chalmers F. Sechrist

IEEE Transactions on Education Best Paper Award Dave Conner

IEEE Fellow Award Sherra Kerns

ASEE ERM Division

ASEE ERM Division Distinguished Service Award Barbara M. Olds

IEEE Computer Society

IEEE CS Undergraduate Teaching Award Stephen Seidman

ASEE ECE Division

Hewlett-Packard Frederick Emmons Terman Award Burks Oakley

Sponsoring Organizations

IEEE Education Society

Marion O. Hagler, President

Ted E. Batchman, FIE 2001 General Chair

Daniel Litynski, FIE Program Co-Chair

ASEE Educational Research and Methods Division

Dan Moore, Program Co-Chair

IEEE Computer Society

Benjamin W. Wah, President

Ann Gates, FIE Program Co-Chair

Awards Ceremony Agenda

Moderator: David V. Kerns, Vice President
IEEE Education Society

ASEE ECE Division Hewlett-Packard Frederick Emmons Terman Award

Presenter: Wayne Johnson
Hewlett-Packard Corporation

IEEE Computer Society Undergraduate Teaching Award

Presenter: Stephen Seidman

ASEE ERM Division Distinguished Service Award

Presenter: Dan Moore, Chair
ASEE ERM Division

IEEE Education Society Meritorious Service Award

Presenter: Marion O. Hagler, President
IEEE Education Society

IEEE Education Society Achievement Award

Presenter: Marion O. Hagler, President
IEEE Education Society

IEEE Education Society McGraw-Hill/Jacob Millman Award

Presenter: Marion O. Hagler, President
IEEE Education Society

IEEE Education Society Transactions on Education Best Paper Award

Presenter: Marion O. Hagler, President
IEEE Education Society

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

Presenter: Marion O. Hagler, President
IEEE Education Society

IEEE Fellow Award

Presenter: Marion O. Hagler, President
IEEE Education Society

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award

Presenter: Susan Lord, Chair
FIE Benjamin J. Dasher Best Paper Award Committee

Frontiers in Education Conference Ronald J. Schmitz Award

Presenter: Larry Shuman, Chair
FIE Ronald J. Schmitz Award Committee



**31st Annual
Frontiers in Education
Conference Awards Banquet**



Zoya Popovic

The University of Colorado
Boulder, Colorado

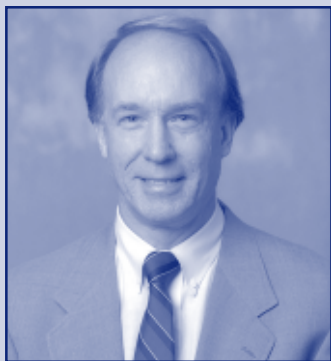
ASEE ECE Division Hewlett-Packard Frederick Emmons Terman Award

Presented by: Wayne C. Johnson

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

Zoya Popovic received a Dip. Ing. (BS) degree from the University of Belgrade, Serbia, Yugoslavia, in 1985 and MS and PhD degrees from Cal Tech in 1986 and 1990. Her doctoral thesis was on large-scale quasi-optical microwave power combining. In August 1990 she joined the faculty of CU, where she has developed undergraduate and graduate electromagnetics and microwave laboratory courses. Her research interests include microwave and millimeter-wave-quasi-optical techniques, active antenna arrays, high-efficiency microwave circuits, RF photonics, and antennas and receivers for radioastronomy.

Popovic co-authored *Introductory Electromagnetics* with her father, Branko Popovic. She has received awards that include the 1996 URSI International Issac Koga Gold Medal, the 1993 NSF Presidential Faculty Fellow Award, and the 1993 IEEE MTT-S Microwave Prize for pioneering work in quasi-optical grid oscillators. Her students named her the Eta Kappa Nu Professor of the Year in 1997. She was awarded the Margaret Willard Award of the University of Colorado Women's Club for being a role model for female students, and elected senior member of IEEE in 1999. In 2000 she received a Humboldt Research Award from the German Alexander von Humboldt Foundation.



David G. Meyer

Professor of Electrical and
Computer Engineering,
Department of Electrical
and Computer Engineering
Purdue University
West Lafayette, Indiana

IEEE Computer Society Undergraduate Teaching Award

Presented by: Stephen Seidman

David G. Meyer received BS and MSE degrees in electrical engineering, an MS in computer science, and a PhD in electrical engineering, all from Purdue University in West Lafayette, Indiana. In 1982 he joined the School of Electrical and Computer Engineering at Purdue, where he is a professor specializing in information technology, embedded system design, advanced architecture microprocessors, and electro-acoustics.

Meyer is a member of the Institute of Electrical and Electronics Engineers (IEEE), the Audio Engineering Society (AES), the Association of Computing Machinery (ACM), and the American Society for Engineering Education (ASEE). He was the 1993–94 national president of Eta Kappa Nu and has served on its board of directors.

He has won numerous teaching awards, including three national awards: the Eta Kappa Nu C. Holmes MacDonalld Outstanding Teaching Award (1987), the IEEE Undergraduate Teaching Award (1995), and the ASEE Fred Merryfield Design Award (1998).

He has published technical papers on topics in computer architecture, use of information technology in engineering education, and electro-acoustics. He has authored book chapters on advanced architecture microprocessors and is developing a textbook, *Microcontroller-Based Digital System Design*.



Charles F. Yokomoto

Professor of Electrical
Engineering
Indiana University-Purdue
University
Indianapolis, Indiana

Past Recipients

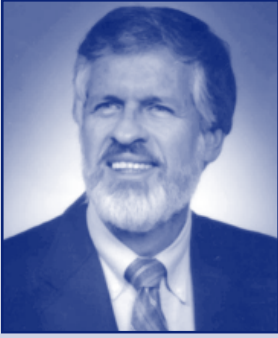
- '95 Wallace S. Venable
- '96 James E. Stice
- '98 Billy V. Koen
Alisha A. Waller
- '99 John C. Lindenlaub
- '00 Richard S. Culver

ASEE ERM Division Distinguished Service Award

Presented by: Daniel J. Moore

*“For outstanding service to the ASEE
Education and Research Methods Division.”*

Dr. Charles Yokomoto is professor of electrical engineering at Indiana University-Purdue University in Indianapolis, where he has taught since 1970. He received BSEE, MSEE, and PhD degrees from Purdue University. He has been an active member of the Educational Research and Methods Division since the early 1980s and has presented papers at 13 FIE conferences and 17 ASEE conferences. He also has conducted workshops on teaching and learning under ERM Division sponsorship. He has served on the ERM Division Executive Board in various capacities. His current interests are in learning styles, problem solving, coaching, deep learning, and outcomes assessment. His electrical engineering research interests are in computer-aided network design, optimization, and design centering.



William Sayle

Professor of Electrical and
Computer Engineering
Associate Chair for
Undergraduate Affairs
Georgia Institute of
Technology
Atlanta, Georgia

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

IEEE Education Society Meritorious Service Award

Presented by: Edwin C. Jones, Jr.

“For contributions to the Education Society through service to the Frontiers in Education Conference, to the Society Newsletter, *The Interface*, and for inspiring leadership in engineering education.”

Bill Sayle received BSEE and MSEE degrees from the University of Texas–Austin in 1963 and 1964 and a PhD from the University of Washington in 1970.

He has industrial service with the Boeing Co., Hughes Aircraft, Hewlett Packard, Motorola, and Lockheed Missiles & Space Division. He is professor of electrical and computer engineering in the School of Electrical and Computer Engineering at Georgia Tech, and associate chair for undergraduate affairs.

He has been editor of *The Interface* since 1996, was program chair for the 25th anniversary conference in 1995, and has contributed to many other activities of the society.



Donald E. Kirk

Dean of Engineering
San Jose State University
San Jose, California

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. Yeagan
- '98 Ted Batchman
- '99 Lyle D. Feisel
- '00 Irene C. Peden

IEEE Education Society Achievement Award

Presented by: Marion Hagler

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

Don Kirk has been dean of engineering at San Jose State University since 1994. Before joining San Jose State in 1987, he was on the faculty of the Naval Postgraduate School. During his years at NPS, he was chair of the Department of Electrical Engineering and spent a sabbatical year at MIT Lincoln Laboratory. Kirk also was a program officer in the Division of Undergraduate Education at the National Science Foundation.

Kirk is the author of the text *Optimal Control Theory: An Introduction* (Prentice-Hall, 1970) and co-author with R.D. Strum of *First Principles of Discrete Systems and Digital Signal Processing* (Addison Wesley, 1988) and *Contemporary Linear Systems Using MATLAB* (PWS Publishing Co., 1994). His research has been in optimal estimation and control and digital signal processing.

Kirk is a fellow of the IEEE and of the American Society for Engineering Education. He has been recognized for service to the Asilomar Conference on Signals, Systems and Computers, and by the IEEE Education Society for meritorious service. He was co-recipient, with Robert D. Strum, of the McGraw-Hill/Millman Award for Excellence in Textbook Authorship. He has been an ABET accreditation evaluator and was chair and a member of the IEEE Committee for Engineering Accreditation Activities. Kirk has also served on the Administrative Committee of the IEEE Education Society, the Steering Committee of the Asilomar Conference on Signals, Systems and Computers, and an associate editor for ASEE's *Journal of Engineering Education*.



Eli Fromm

Professor of Electrical and
Computer Engineering
Drexel University
Philadelphia, Pennsylvania

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. Yeagan
- '98 Ted Batchman
- '99 Lyle D. Feisel
- '00 Irene C. Peden

IEEE Education Society Achievement Award

Presented by: Marion Hagler

*“For outstanding leadership in the
advancement of engineering education.”*

Eli Fromm is the Roy A. Brothers University Professor of electrical and computer engineering in the College of Engineering at Drexel University.

He has held many academic leadership positions at Drexel, including vice president for educational research, vice provost for research and graduate studies, and interim dean of engineering.

He has also held positions with the General Electric and DuPont companies, been a staff member of the Committee on Science and Technology of the U.S. House of Representatives as a Congressional Fellow, served as program director at the National Science Foundation, and been a visiting scientist with the Legislative Office of Research Liaison of the Pennsylvania House of Representatives.

He was the originator and principal investigator of the Drexel E4 educational reform project and is principal investigator and director of the Gateway Engineering Education Coalition.

Before devoting the past 15 years to the engineering educational reform movement, he was PI for bioengineering research projects involving biotelemetry, including development of miniature implantable transmitters and sensors with experimental use in physiologic measurements of the reproductive, gastrointestinal, and cardiovascular systems.

He served two terms as president of the IEEE Engineering in Medicine and Biology Society and was a member of the IEEE Technical Activities Board, Educational Activities Board, and Board of Directors. He is a fellow of the IEEE, a fellow of the AIMBE, and recipient of awards and honors from ASEE, NEEDHA, ABET, IEEE, the Smithsonian Institution, and Drexel University.



Sanjit K. Mitra

University of California–Santa
Barbara
Santa Barbara, California

Past Recipients

- '93 J. David Irwin
- '94 A. Bruce Carlson
- '95 James W. Nilsson
- '96 Simon Haykin
- '97 Donald E. Kirk
Robert D. Strum
- '98 Richard C. Jaeger
- '99 John B. Peatman
- '00 Matthew N.O. Sadiku

IEEE Education Society McGraw-Hill/Jacob Millman Award

Presented by: James R. Rowland

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

Sanjit K. Mitra is a professor of electrical and computer engineering at the University of California–Santa Barbara, where he chaired the department from July 1979 to June 1982.

He has published more than 550 papers in signal and image processing and 12 books, and holds five patents. He was president of the IEEE Circuits & Systems Society in 1986 and has held visiting appointments in Australia, Finland, India, Japan, and the United Kingdom. He is on the editorial boards of four international journals.

He received the F.E. Terman Award in 1973 and the AT&T Foundation Award in 1985 from the American Society of Engineering Education, the IEEE Circuits & Systems Society Education Award in 1989, the Technical Achievement Award of the IEEE Signal Processing Society in 1996, the Mac Van Valkenburg Society Award and the CAS Golden Jubilee Medal of the IEEE Circuits & Systems Society in 2000, and the IEEE Third Millennium Medal in 2000. He is co-recipient of the Blumlein-Browne-Willans Premium from the IEE (London) in 2000. He received an honorary doctorate of technology degree from the Tampere University of Technology, Finland, in 1987. He is an academician of the Academy of Finland. Mitra is a fellow of the IEEE, AAAS, and SPIE.



Christopher W. Trueman

Concordia University
Montreal, Canada

Past Recipients

- '99 J.A. Buck
- H. Owen
- J.P. Uyemura
- C.M. Verber
- D.J. Blumenthal
- '00 David J. Russomanno
- Ronald D. Bonnell

IEEE Education Society Transactions on Education Best Paper Award

Presented by: Marion Hagler

Christopher W. Trueman (Senior Member), "Interactive Transmission Line Computer Program for Undergraduate Teaching," *IEEE Transactions on Education*, Vol. 45, No. 1, February 2000, pp. 1-14.

Christopher W. Trueman (S '75, M '75, SM '96) received a bachelor's degree in engineering in 1972 and a master's degree in engineering in 1975, both from McGill University in Montreal, Canada. He became a lecturer at Concordia University in Montreal in 1974. He received a doctoral degree from McGill University in 1979 with a thesis on wire-grid modeling of aircraft antennas.

His research in computational electromagnetics uses moment methods, the finite difference time domain method, and geometrical optics and diffraction.

He has worked on electromagnetic compatibility problems between standard broadcast antennas and high-voltage power lines, on the prediction of the radiation patterns of aircraft and ship antennas, on EMC problems among the many antennae carried by aircraft, and on the calculation of the radar cross-section of aircraft and ships. Recently he studied the near and far fields of cellular telephones operating near the head and hand, and indoor propagation of cell phone signals, particularly in hospital environments involving EMC problems with medical equipment.

Dr. Trueman served his department as associate chair from 1996 to 2001 and started the department's program in cooperative education. He became a full professor in 2000.



Valerie Taylor

Associate Professor, Electrical
and Computer Engineering
Department
Northwestern University
Evanston, Illinois

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

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

Presented by: Marion O. Hagler

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

Valerie Taylor is an associate professor of electrical and computer engineering at Northwestern University and holds a guest appointment with the Mathematics and Computer Science Division at Argonne National Laboratory. She has been at Northwestern since 1991.

Her research interests are in high-performance computing, with emphasis on performance of parallel and distributed applications. Taylor has published more than 70 articles related to high-performance computing.

She has a true commitment to undergraduate education, illustrated by the fact that she has undertaken the task of incorporating peer-led team learning workshops into the engineering analysis courses at Northwestern. This is a four-course sequence taken by all freshman engineering students. During the 1999–2000 academic year, she revised the Introduction to Computer Engineering course to include new laboratory assignments that incorporated digital logic and assembly language to automatically control a car, giving students a more comprehensive experience of computer engineering. She also has a joint project with Purdue University and Chicago State University to incorporate Web-interfaced computer architecture simulation tools into courses at the three universities.

In 1993 she received a National Science Foundation National Young Investigator Award. In 1994 she received the National Technical Association Computer Engineer of the Year Award. She received a BS in computer and electrical engineering and an MS in electrical engineering from Purdue University in 1985 and 1986, and a PhD in electrical engineering from the University of California–Berkeley in 1991.

She is is general co-chair of the Richard Tapia Celebration of Diversity in Computing Symposium 2001 and general chair of the Grace Hopper Celebration of Women in Computing Conference 2002. She is co-chair of the Coalition to Diversify Computing and a member of ACM and IEEE-CS.



David L. Soldan

Professor of Electrical and
Computer Engineering
Kansas State University
Manhattan, Kansas

IEEE Fellow Award

Presented by: Marion Hagler

“For contributions to and leadership in engineering education.”

David L. Soldan is professor and head of electrical and computer engineering at Kansas State University. As a member of the IEEE Committee on Engineering Accreditation Activities, he is active in new program evaluator training and new evaluator mentoring. 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 was FIE program co-chair in 1995 and 1998. Soldan is vice president of the Electrical and Computer Engineering Department Heads Association. He chairs the Computer Engineering Curriculum Committee of the IEEE Computer Society Computing Curriculum 2001 Taskforce.

Soldan has worked in 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 currently teaches an introductory logic design class.

Soldan received bachelor's, master's, and doctoral degrees in electrical engineering from Kansas State University. Before joining Kansas State as Electrical and Computer Engineering Department head in 1989, he had been on the faculty at Oklahoma State University and worked in industry for the NCR Corporation, Motorola, and Collins Radio Company. He served in the U.S. Air Force for four years and has consulted for IBM; Frontier Engineering; ETO, Inc.; and several universities.



David W. Petr

Professor of EECS and Sharp
Professor of Engineering
The University of Kansas
Lawrence, Kansas

Past Recipients

- '73 Walter D. Story
- '74 Richard Hooper
- '75 John J. Alan III
J.J. Lagowski
- '76 John Hipwell
David Blaume
- '77 John W. Renner
- '78 Albert J. Morris
- '79 Donald R. Woods
Cameron M. Crowe
Terrence W. Hoffman
Joseph D. Wright
- '80 Marilla D. Svinicki
- '81 Martha Montgomery
- '82 A.L. Riemenschneider
Lyle D. Deisel
James M. Trosino
- '83 Davood Tashayyod
Banu Onaral
- '84 Bill V. Koen
- '85 Bill V. Koen
- '86 Richard S. Culver
- '87 David A. Conner
David G. Green
Thomas C. Jannett
James R. Jones
M.G. Rehoff Jr.
Dennis G. Smith
Gregg L. Vaughn

Frontiers in Education Conference Benjamin J. Dasher Best Paper Award

Presented by: Susan Lord

*“Measuring (and Enhancing?) Student
Confidence with Confidence Scores.” Session
T4B, 2000 FIE Conference*

David W. Petr received a BSEE from Southern Methodist University in 1976, an MSEE from Stanford University in 1978, and a PhD from the University of Kansas in 1990. He is an associate professor in the Electrical Engineering and Computer Science Department and the Information and Telecommunication Technology Center at the University of Kansas.

His research focuses on the design and analysis of network resource management and congestion control mechanisms, network traffic modeling and performance analysis, voice transport over asynchronous transfer mode (ATM) networks, and pricing for multiservice networks.

From 1977 to 1986 he was employed by AT&T Bell Laboratories in digital PBXs, digital transmission systems, packet communication networks and protocols, and speech coding. He was awarded three patents related to this work.

During the 1983–84 academic year, Petr represented AT&T as a visiting professor at Tennessee State University. During the first half of 2000, he was a visiting Erskine Fellow at the University of Canterbury in Christchurch, New Zealand. He was named a Sharp Professor of Engineering for 2000–2003 for excellence and innovation in teaching. He is a senior member of IEEE and a member of Eta Kappa Nu, Tau Beta Pi, Sigma Xi, and the American Society for Engineering Education (ASEE).

- '88 Richard M. Felder
- '89 Richard C. Compton
- '90 Cindy A. Greenwood
- '91 Robert Whelchel
- '92 William LeBold
Dan D. Budny
- '93 Daniel M Hull
Arthur H. Guenther
- '94 Burks Oakley II
Roy E. Roper
- '95 Curtis A. Carver Jr.
Richard A. Howard
- '96 Val D. Hawks
- '97 Edwin Kashy
Michael Thoennesen
Yihjia Tsai
Nancy E. Davis
Sheryl L. Wolfe
- '98 A.B. Carlson
W.C. Jennings
P.M. Schoch
- '00 Wayne Bursleson
Aura Ganz
Ian Harris



David L. Soldan

Professor of Electrical and
Computer Engineering
Kansas State University
Manhattan, Kansas

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.
- '91 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

Frontiers in Education Conference Ronald J. Schmitz Award

Presented by: Larry Shuman

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

David L. Soldan is professor and head of electrical and computer engineering at Kansas State University. As a member of the IEEE Committee on Engineering Accreditation Activities, he is active in new program evaluator training and new evaluator mentoring. 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 was FIE program co-chair in 1995 and 1998. Soldan is vice president of the Electrical and Computer Engineering Department Heads Association. He chairs the Computer Engineering Curriculum Committee of the IEEE Computer Society Computing Curriculum 2001 Taskforce.

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Soldan received bachelor's, master's, and doctoral degrees in electrical engineering from Kansas State University. Before joining Kansas State as Electrical and Computer Engineering Department head in 1989, he had been on the faculty at Oklahoma State University and worked in industry for the NCR Corporation, Motorola, and Collins Radio Company. He served in the U.S. Air Force for four years and has consulted for IBM; Frontier Engineering; ETO, Inc.; and several universities.

