

BRIDGE of Eta Kappa Nu



Harold A. Wheeler
1996 Recipient
Vladimir Karapetoff
Eminent Members' Award

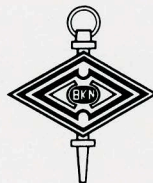


Editor and Business Manager
J. Robert Betten

August 1996
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The BRIDGE is published by Eta Kappa Nu Association, an electrical engineering honor society. Eta Kappa Nu was founded at the University of Illinois, Urbana, October 28, 1904, that those in the profession of electrical engineering, who, by their attainments in college or in practice, have manifested a deep interest and marked ability in their chosen life work, may be brought into closer union so as to foster a spirit of liberal culture in the engineering colleges and to mark in an outstanding manner those who, as students in electrical engineering, have conferred honor on their Alma Maters by distinguished scholarship activities, leadership and exemplary character and to help these students progress by association with alumni who have attained prominence.

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Become a Paul K. Hudson Fellow.

Do it Today!

See Details on Page 3.

PAUL K. HUDSON HKN DEVELOPMENT FUND ANNUAL CAMPAIGN

Paul K. Hudson
1916-1988

Eta Kappa Nu Executive Secretary and BRIDGE Editor, 1958-1988



Established by the Board of Directors in April 1992, this important fund will honor the memory of Paul Hudson, a devoted servant of HKN and a man who truly exemplified the qualities that "balance the bridge."

The Hudson fund, managed by the HKN Board of Directors, will be used to support the general development of Eta Kappa Nu. For example, the fund will be used where necessary to help support HKN's national award programs; expansion, including the development of new college chapters and alumni chapters; and chapter visitations by current and past national officers and directors to assist with special occasions. All of these examples represent activities which Paul so heartily endorsed. Other developmental projects will be considered by the Board as funding grows and new objectives important to HKN become established.

As we honor Paul, we also honor donors to the fund by recognizing them as Paul K. Hudson Fellows. Five levels of giving are recognized, as in the form below. One-time donations at any level will be gratefully accepted. In addition, donors may now make pledges for annual donations. All donations will be counted cumulatively for the purpose of establishing the donor's current level of giving. Fellows at each level will be recognized annually by name in the BRIDGE.

Eta Kappa Nu thanks those who have already become Paul K. Hudson Fellows. We invite all members and friends of HKN to join the growing list of Fellows. And whether or not you are presently a Fellow, consider extending your support of the Hudson Fund on an annual basis. Simply fill out and return the form below. Thank you for your part in supporting and strengthening Eta Kappa Nu.

____ I wish to become a Paul K. Hudson Fellow at the level of (check one)

____ Distinguished Fellow (\$2000 and above)

____ Century Fellow (\$1000 - \$1999)

____ Sustaining Fellow (\$500 - \$999)

____ Supporting Fellow (\$100 - \$499)

____ Fellow (\$25 - \$99)

with the enclosed contribution of \$_____.

____ I wish to pledge a total of \$_____ to the Hudson Fund, at \$_____ per year for _____ years, beginning _____.

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University of Missouri-Rolla
Rolla, Missouri 65401

NEW OFFICERS AND DIRECTORS



Robert I. Egbert
President

Robert I. Egbert was born in St. Louis, Missouri on May 25, 1950. He attended Riverview Gardens High School in St. Louis and graduated in May, 1968. He entered the University of Missouri-Rolla (UMR) in the fall of 1968 as an electrical engineering major.

At UMR he was a member of Eta Kappa Nu, Tau Beta Pi, Phi Kappa Phi, and IEEE. During his senior year at UMR he became involved in a research project with a faculty member in the UMR Electrical Engineering Department. Involvement in this research activity ultimately led him to decide to attend graduate school.

After receiving his B.S.E.E. from UMR in 1972 he enrolled in graduate school at UMR and received an M.S.E.E. degree in 1973 and Ph.D. in Electrical Engineering from UMR in 1976. During his graduate studies he was employed first as a Graduate Teaching Assistant (GTA) and later served as a

Graduate Instructor (GI) in the UMR Department of Electrical Engineering.

In 1976 he joined Black & Veatch Consulting Engineers in Kansas City, Missouri, where he was employed as a Systems Engineer in the Power Division. At Black & Veatch he was involved in performing technical and economic feasibility studies of both conventional and alternative forms of electric power generation for electric utilities and research organizations.

In 1980 he joined the faculty of the Electrical Engineering Department at Wichita State University (WSU) in Wichita, Kansas as an Assistant Professor. At WSU he has taught courses in circuit and systems analysis, control theory, and electric power.

In 1983 he received the American Society for Engineering Education (ASEE) Dow Outstanding Young Faculty Award for the ASEE Midwest Section. He has also been nominated for the Kansas Board of Regents Outstanding Teaching Award.

Dr. Egbert was promoted to Associate Professor of Electrical Engineering in 1986. In 1987 he was appointed Director of the WSU Center for Energy Studies, an interdisciplinary university-wide research center with an emphasis on applied energy-related research. In 1995, he was promoted to the rank of Professor. Dr. Egbert has been a manuscript review consultant for a number of textbook publishers and has served as an expert witness in several law cases related to electric

power. He has published over thirty articles in leading research journals and conference proceedings. In addition, he has obtained over six hundred thousand dollars in funded research from a variety of federal, state, local, and private sources, including the National Science Foundation (NSF), the U.S. Department of Energy (DOE), and the Electric Power Research Institute (EPRI).

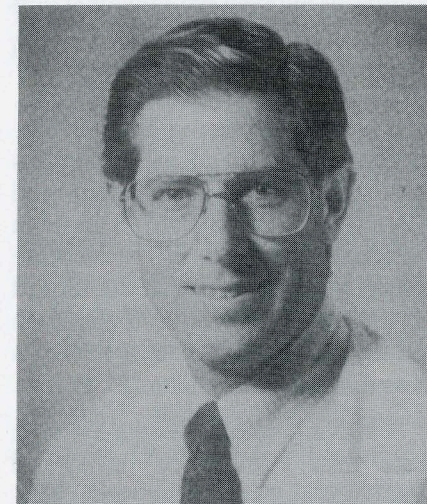
He is a registered professional engineer in the states of Kansas and Missouri and has been active in a variety of technical, professional, and honor societies. At WSU he has been the faculty advisor for the WSU chapter of Eta Kappa Nu for the past fifteen years and served on the international Board of Directors of HKN from 1993-1995. In 1995 he was elected as the HKN Vice-President. He also served as the faculty advisor for the WSU student chapter of the National Society of Professional Engineering from 1981 to 1986. He is a member of the American Society for Engineering Education (ASEE) and served as the Papers Chairman for the 19th Annual Midwest Section ASEE Meeting in 1984.

Dr. Egbert is a Senior Member of IEEE and served as Secretary/Treasurer of the Wichita Section in 1981 and 1982, Vice-Chairman in 1982 and 1983, and Chairman of the Wichita Section in 1983 and 1984. He is also a member of the Kansas Engineering Society (KES) and has served a member of the KES Long Range Planning Committee, the Energy

Policy Task Force, and was Chairman of the Student Professional Development Committee for four years.

He is a member of Sigma Xi, the honorary society for scientific researchers and Pi Mu Epsilon, the mathematics honor society. He has also served on the EPRI Energy Storage Program Committee and has been a member of the EPRI Compressed-Air Energy Storage (CAES) Working Group. In 1992 he was appointed to the Kansas Energy Policy Committee by Governor Joan Finney.

Dr. Egbert is married and his wife, Anne, is an Associate Professor of Internal Medicine at the University of Kansas School of Medicine-Wichita. They live in Wichita. His hobbies include hunting, fishing and other outdoor activities.



John Wolf
Vice President

As vice president-general manager of the MD-95 Program, John Wolf (b.1944) is responsible for the Program's overall business. As team leader for the MD-95 Program office and supporting functional divisions, John oversees full-scale development and certification, production and business development of the MD-95. He also oversees all

aspects of the supplier-partner team. He has held this position since January 1996. John reports to the President of Douglas Aircraft Company.

Prior to this appointment, John served as executive vice president-development, where he was responsible for establishing the MD-95 Program business structure and for achieving the Authority to Offer and the Authority to Proceed. He was also responsible for leading the design, development, planning and testing of new aircraft, and for product support for the existing fleet of McDonnell Douglas commercial aircraft.

John joined McDonnell Douglas Corporation in 1963 through a university engineering program and became a full-time engineer in 1967, working on Air Force programs at McDonnell Douglas Astronautics Company, now part of McDonnell Douglas Aerospace. During his service in the Laser Communications program, he received promotions to task leader, manager, deputy program manager (1978) and deputy director (1981).

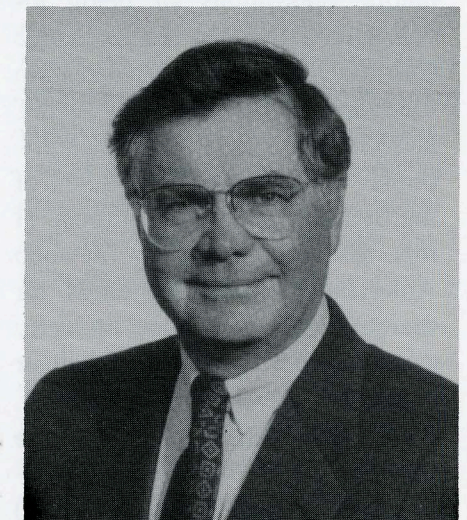
He moved to McDonnell Douglas Electronics Company in 1982 to become vice president of Program Management, and was promoted to executive vice president in 1983 and vice president-general manager in 1984. He next joined McDonnell Douglas Aircraft Company, where he served three years as executive vice president of Operations.

John came to Douglas Aircraft in 1989 as vice president-general manager of twin jet aircraft programs, responsible for the MD-90, MD-80 and DC-9. In April, 1991, he became executive vice president, Programs, responsible for the MD-80 and MD-11 commercial product lines.

John earned a bachelor's degree,

a master's degree and a professional degree in electrical engineering from the University of Missouri-Rolla. A native of Oklahoma, John is married and has two children.

Douglas Aircraft Company is the commercial aircraft division of McDonnell Douglas Corp., based in St. Louis, Mo.



Bruce DeMaeyer
Director

Bruce DeMaeyer comes to our board with over 36 years of experience in the telecommunications industry. He resides in Jackson, Wyoming where, as President, he runs Great Western Teleconsulting, Inc., an operations/management consulting company he founded to guide international ventures in the development and implementation of wireless telecommunications services.

He is currently working on major projects in Kazakhstan, Indonesia and Azerbaijan.

Bruce has long been recognized in the telecommunications industry as a leader in implementing new technologies. His expertise in the project management of large scale operations encompasses strategic business planning, telephone network design, and operations management. This background gives his

company a large range of skills as it takes on a new role of training individuals in developing countries to install and maintain their own telecommunications networks.

Bruce has been very involved in the development of telecommunications standards. He had the unique opportunity of being involved in setting up the Exchange Carriers Standard Association following the divestiture of AT&T in 1983. As a result of his contribution, he became Chairperson of the Board in 1984. The purpose of this association was to develop American National Standards for the telecommunications industry since AT&T could no longer speak for the entire US industry. As a subsequent step, in 1987 he was named to the American National Standards Institute (ANSI) Board of Directors. ANSI is the overseeing body for all United States standards activities. Bruce represented the telecommunications industry on that Board. In 1988, he was elected Vice Chair of ANSI and served in that capacity until 1992.

Success in running his own business for the last four years rests on the solid foundation of his telecommunications career.

From 1989 to 1992, he served as President of Ameritech Mobile Communications in Hoffman Estates, Illinois. There he managed a strategic business unit that had total responsibility for Ameritech's activities in the cellular radio, paging and vehicle location businesses. Under his direction, Ameritech doubled its customer base to over 500 thousand cellular customers and tripled its customer base to over 335 thousand paging customers in just three year's time.

Additionally, he not only spearheaded the development and implementation of the digital cellular conversion strategy but also was at the forefront of an industry-wide effort to bring a new technology (CDMA) into the standards process.

Prior to his employment with Ameritech Mobile, he served in the same capacity as President of Ameritech Services in Schaumburg, Illinois from 1985 to 1989. Ameritech Services is the staff company for the five Ameritech operating telephone companies, i.e., Illinois Bell, Indiana Bell, Ohio Bell, Michigan Bell and Wisconsin Bell. His major accomplishments included developing the early stages of the Advanced Intelligent Network for implementation; managing an annual \$1 billion budget for the purchase of materials for the operating companies; acting as administrative liaison between the interexchange carriers (AT&T, MCI, Sprint, etc.) and the operating companies; and, serving as Ameritech's member to Bellcore's Board of Directors.

In 1987, he was awarded Fellow Institute of Electrical and Electronic Engineers (IEEE), a group that he has been active in since graduation from college.

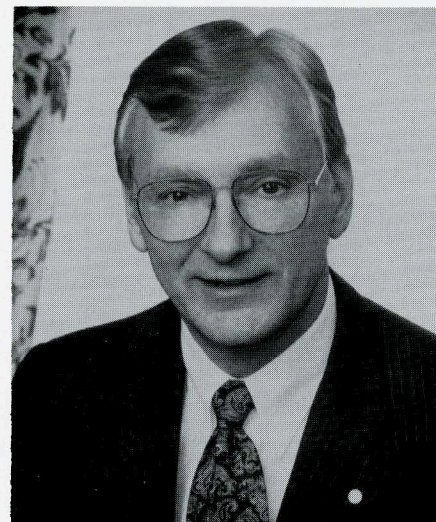
During the years 1983-1985, Bruce was Vice President, Operations for Illinois Bell Telephone in Chicago, Illinois. He managed the entire company operations, consisting of distribution services, operator services, customer services, and network operations. He also was the Divestiture Coordinator managing all divestiture issues for the company in the last year prior to divestiture. In that capacity he created the action plan to dra-

matically reduce operating expenses in preparation for the divestiture. From 1977 to 1983, Bruce was employed by Indiana Bell Telephone, Indianapolis, IN. He began as General Manager, Network and was elevated to Vice President of Operations during the last three years of his stay. In addition to directing their entire network operations and serving as Divestiture Coordinator managing company issues including the subsequent reduction of bottomline expenses during the first year of the announced impending divestiture, he completed a vastly accelerated electronic switching conversion program for the entire state.

Bruce's illustrious career began in 1960 with Illinois Bell Telephone as an Engineer, having graduated from Illinois Institute of Technology, Chicago, IL, with a BSEE Degree.

Over the years he has had numerous civic and social affiliations that include Vice Chairman and Member of the Board, American National Standards Institute (ANSI) and Member of the Board of Directors, Cellular Telephone Industry Association to name a few.

Having taken residency in a state best known for its Grand Teton mountain range and Yellowstone National Park, Jackson Hole, WY, maintains its popularity as a skier's haven. As an avid outdoorsman, Bruce enjoys skiing, hiking, fishing, white-water rafting, and channel surfing in his "spare time" when not traversing the continents to conduct international business. While he prides himself in having a balanced life, that is, "not all business," his ear is seldom far from the telephone as his most quotable axiom is "phone first", especially if it is on your cellular phone.



Ronald Hoelzeman
Director

Ronald Hoelzeman has been with the University of Pittsburgh for over 25 years. He is on the faculty of both the electrical engineering and computer engineering programs, and is presently the Director of Computer Engineering. He teaches courses in Systems, Circuit Analysis and Design, Digital Design, Computer Organization, Optimization, and Computer Design. His research is in the computer graphics, computer aided design, and several educational innovation areas.

During his years at Pitt, he has held a number of administrative positions. He served as Associate Chair of Electrical Engineering for many years, where he was responsible for the development and implementation of new department wide projects and plans, student admission, teaching assistant appointments and coordination, course scheduling, and CO-OP engineering program coordination.

He has also served as Director of the Interactive Computing Laboratory wherein he coordinated a group of faculty and research assistants involved in the development of both instructional and research ori-

ented computer graphics aided engineering applications and software. He was responsible for the operation and funding of the facility and its supporting personnel.

From 1977-80, he was the Director of the Office of Continuing Education and Special Projects for the School of Engineering. He coordinated the faculty of the various departments to design and teach over forty courses, seminars, and conferences per year. He developed new relationships between the school and local industry and generated company in-house type of educational offerings.

Ron started his career with the Westinghouse Electric Corporation. There, he spent a number of years as a systems engineer in the Power Control Division, and later in the Computer Systems Divisions, installing process control computer systems into Power Plant, Power Distribution, and Steel Mill control applications.

Later, he spent a year as a Visiting Faculty at the American University of Beirut, teaching undergraduate and graduate courses, and helping to develop a Masters program in their Electrical Engineering Department.

He received his B.S., 1964, M.S., 1967, and Ph.D. Degrees, 1970, all in Electrical Engineering from the University of Pittsburgh.

Ron has served in a number of professional society roles within the Institute of Electrical and Electronics Engineers (IEEE), the IEEE Computer Society, and the American Society for Engineering Education (ASEE).

Most recently, he was the 1995 President of the Computer Society. This organization is the oldest and largest technical organization of computer professionals in the world. The largest of the IEEE Societies, it

has over 100,000 members world wide. With a staff of 100 and offices in Washington, Los Angeles, Brussels, and Tokyo, this organization is the leading producer of technical information for the computer engineering and computer science community. The society produces 18 transactions, journals, and magazines, 130 conferences, and 20 books per year. It maintains over 200 chapters worldwide, is heavily involved in standards generation, and is responsible for much of the definitive curricula and accreditation activities in the computer science and engineering area.

In addition to his role as president, he has served the society as Treasurer, Secretary, and Vice President of Publications, Education, and Press. He has been involved in primarily education and publication activities of the Society for over 20 years. He was one of the team that developed the original Model Curricula for Computer Science and Engineering, which was subsequently used as the framework for accreditation in the computer engineering area. He was also one of the group that developed the Report on Design Content in Computer Engineering. Ron has also served as a member of the Computing Sciences Accreditation Board for several years.

In IEEE, Ron has served as an IEEE Director, on the Technical Activities, Regional Activities, and Publications Boards. He was Chair of the Audit Committee, and served on the Spectrum-Institute Board. He has chaired the Facilities Committee, and has served on several of the Awards and Technical Activities Committees.

From 1977-80, he served as the IEEE Vice President for Education, and as a member of the IEEE Executive Committee. He has worked

in educational activities for many years on EAB including: as a Director of the Accreditation Board for Engineering and Technology (ABET), the Accreditation Policy Committee, and the Committee on Engineering Accreditation. He served 9 years as an ABET Program evaluator for both electrical and computer engineering programs.

Ron has served as a Director and Executive Committee Member, Vice Chair, and Chair of the North Central Section of the American Society for Engineering Education. In addition, he is a reviewer for

various journals and publishers, has been an associate editor for Computer Magazine, and served on the editorial board of Computer Science Education.

He has received the Dow and Western Electric Awards for excellence in teaching from the ASEE, and several student and university distinguished teaching awards. He has been awarded both meritorious and distinguished service awards from the Computer Society and the IEEE. He received the IEEE Undergraduate Teaching Medal in 1993, "For outstanding teaching, for his concern with

students, and for his contributions to the quality of undergraduate electrical engineering education." He received the IEEE Haraden Pratt Medal in 1994, "For continued and outstanding leadership and contributions to many facets of the Institute operations."

He is listed in Who's Who Among America's Teachers, Who's Who in the East, Who's Who in Science and Engineering, Marquis Who's Who in America, Marquis Who's Who in the World, American Men and Women of Science, and AAES Who's Who in Engineering. Ron is a Fellow of the IEEE.

IN MEMORIAM

Donald G. Fink

Donald Glen Fink, an Eminent Member of Eta Kappa Nu and recipient of its Outstanding Young Electrical Engineers award in 1940, died on Friday, May 3, 1996, at the age of 84.

A graduate of MIT, Fink joined the staff of McGraw-Hill's *Electronics* magazine and rose to the position of editor in chief. He earned the M.Sc. from Columbia University in 1947. He became director of research for Philco Corp. in 1952 and vice president, research, in 1961. In 1962 he became director of Philco-Ford Scientific Laboratories.

During World War II, on leave from McGraw-Hill, he was an expert consultant to the War Department, and headed the Loran Division of the MIT Radiation Laboratory, receiving the Presidential Certificate of Merit and the Medal of Freedom for his services.

His interest in television began in the 1940's and resulted in his recruitment by national committees charged with developing television standards. As chairman of a major committee, he advised against

premature setting of color television standards and went on to help develop the National Television system Committee (NTSC) standards. He was vice chairman of NTSC.

After the war, Fink served as a member of the Naval Research and Development Board and, later, on the Army Science Advisory Panel. He was elected to the National Academy of Engineering and served on the international programs board of the National Academy of Sciences.

Fink was the first general manager and executive director of the IEEE. He was appointed to the general manager post in 1963, when the Institute of Radio Engineers (IRE) and the American Institute of Electrical Engineers (AIEE) merged to form the IEEE. He assumed the additional function of executive director in 1972. He retired in 1974, and was appointed Director Emeritus of the IEEE.

He was a Fellow of the Radio Club of America and recipient of its Sarnoff, DuMont, and Batcher awards. Fink received the U.S. Army's outstanding Civilian Service Medal, the IEEE Centennial Medal, and the IEEE Founders Medal. He was a member of Sigma Xi and Tau Beta Pi. Fink was widely known as an editor

and author. He was the founding editor of the McGraw-Hill *Electronics Engineers' Handbook*, soon to be published in its fourth edition, and editor of the *Standard Handbook for Electrical Engineers*. He was coauthor, with John Ryder, of *Engineers and Electrons*, published by the IEEE Press during the centennial of the IEEE. He also wrote *Computers and the Human Mind*, *An Introduction to Artificial Intelligence*, *Principles of Television Engineering*, *Television Engineering*, and *Physics of Television*, among others. He served as IRE Editor in 1956 and 1957. In 1979 the annual Donald G. Fink Prize Paper Award was established for the best tutorial, review, or survey paper published in any IEEE journal.

Fink was held in high esteem by those who worked for him. Donald Christiansen, Editor Emeritus of *IEEE Spectrum*, who was on Fink's staff at IEEE headquarters, described him as "technically astute, quick-witted, and an outstanding manager of people."

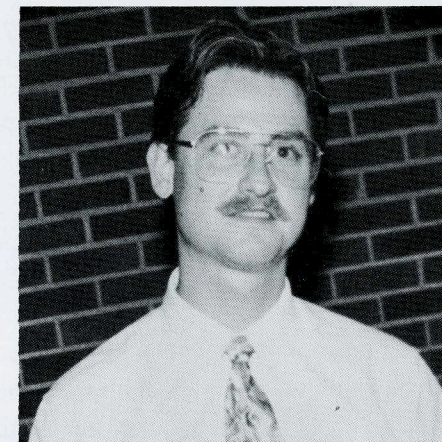
He is survived by his wife, Alice Berry Fink; two daughters, Kathleen Marion Fink of Arlington, MA, and Susan Carol Fink Rudman of Boulder, CO; a son, Stephen Donald Fink of Andover, MA; and four grandchildren.

JOHN D. CRESSLER

1996 Winner

C. Holmes MacDonald Outstanding Teacher Award

By Robert F. Arehart



John D. Cressler, associate professor of Electrical Engineering, has been selected from among all the young electrical engineering professors in the country to be named the recipient of the C. Holmes MacDonald Outstanding Teaching Award for 1996. The award is sponsored by Eta Kappa Nu, the national Electrical Engineering honor society.

The purpose of the C. Holmes MacDonald Outstanding Teaching Award is to emphasize among young Electrical Engineering teachers and educators the value of their service in keeping with Eta Kappa Nu's belief "that excellence in education and the instilling of a spirit for the acquisition and sharing of knowledge is one of the most valuable services to society." The award is given annually to a young electrical engineering professor for "outstanding contributions and achievement in teaching, scholarship, research and innovation, and for civic and industrial relations."

Dr. Cressler received his B.S. from the Georgia Institute of Technology, Atlanta, GA in 1984, and his M.S. and Ph.D. from Columbia University, New York, NY, in 1987 and 1990, respectively. From 1984 to 1992 he was employed at the IBM Thomas J. Watson Research Center, in Yorktown Heights, NY, where he worked in the Semiconductor Science and Technology Department on the design, characterization, and analysis of sub-micron silicon (Si) and silicon-germanium (SiGe) bipolar transistors and circuits. His research interests at IBM included the scaling of both ion-implanted and epitaxial Si and SiGe-base transistors, and particularly the operation and understanding of such devices at cryogenic temperatures.

In 1992, he left the IBM Research Division to join the faculty of Auburn University, Auburn, AL, as an Associate Professor of Electrical Engineering. His current research interests include SiGe devices and

technology, physics of Si-based heterostructures, cryogenic electronics, transistor noise, Si RF and microwave circuits, radiation effects, device simulation, and compact circuit modeling. He is currently Assistant Director of the Alabama Microelectronics Science and Technology Center (AMSTC), a multidisciplinary state-funded research center, and Director of the Cryogenic Electronics Laboratory within the AMSTC.

Dr. Cressler has published over 100 invited and contributed technical papers related to his research, received five awards from the IBM Research Division, holds one US patent, and was elected an IEEE Senior Member in 1991. He is currently serving on the Technical Program Committees of the International Solid State Circuits Conference (ISSCC: 1992-present), the Bipolar/BiCMOS Circuits and Technology Meeting (BCTM: 1994-present), and International Electron Device Meeting (IEDM: 1996-present) conferences, and is Vice-Chair of Technical Program Committee of the 1997 ISSCC (Chair for the 1998 ISSCC).

Dr. Cressler was appointed an IEEE Electron Device Society Distinguished Lecturer in 1994. He was awarded the 1996 Auburn University Alumni Engineering Council Research Award, which represents "the highest honor for research in the College of Engineering." He received an Office of Naval Research Young Investigator Award in 1994 for his SiGe research program, and he has served as a consultant to IBM, Analog Devices, Westinghouse, ITRI/ERSO (Taiwan), and the National Technological University.

Dr. Cressler is a volunteer youth minister to high school students at Saint Michael's parish in Auburn, a father of three, and an avid vegetable gardener and home-brewer.



Dr. John Cressler with Eta Kappa Nu, Past National President, Dr. Russell Lueg, at Left, and Auburn's Dean, College of Engineering, Dr. William F. Walker, at Right



Dr. Cressler with his Family: His wife Maria; his daughters, Joanna and Christina; and his son, Matthew

Dr. J. David Irwin, EE Department Chairman at Auburn University, made the following remarks in behalf of Dr. Cressler's Nomination.

It is a distinct pleasure for me to nominate Professor John D. Cressler for the Eta Kappa Nu C. Holmes MacDonald Outstanding Teaching Award. Professor Cressler joined the Electrical Engineering Department at Auburn University in September of 1992. He is currently 34 years old, and received his B.S. from Georgia Institute of Technology, Atlanta, GA in 1984. Following his undergraduate education he joined the IBM Thomas J. Watson Research Center in Yorktown Heights, NY. After working for one year he was selected by IBM to participate in their highly competitive Graduate Fellowship Program, and was sent to Columbia University in New York City to pursue his Ph.D. on a part-time basis. He received his M.S. and Ph.D. from Columbia University in 1987 and 1990, respectively. During his graduate studies at Columbia, he remained employed as a full-time researcher at the IBM Thomas J. Watson Research Center in the Semiconductor Science and Technology Department. I think the fact that he was able to excel in his graduate work (GPA > 3.9) while remaining an active contributing member in his research group at IBM speaks extremely well of his drive and determination to succeed.

In his 3 short years at Auburn University, Professor Cressler has already attained a reputation as a first rate teacher and educator. Even before coming to Auburn he had gained over five years of university-level teaching experience. His teaching spanned the range of being an Adjunct Professor of Mathematics at Western Connecticut State University in Danbury, CT, to Adjunct Assistant Professor of Electrical Engineering at Columbia University. He was even selected to teach three years in the nationwide video-based instruction program of the National Technological University, where he was voted an "Outstanding Instructor" by his students. His instructional experience prior to coming to Auburn involved both undergraduate and graduate courses covering material as diverse as first and second year Calculus to Bipolar Transistor Physics.

Professor Cressler is a key member of the Electronics Stem in the Electrical Engineering Department at Auburn. His teaching responsibilities include undergraduate electronics and introductory semiconductor device courses, as well as all of the graduate level semiconductor device physics courses. From comments written by students during confidential evaluations, it is clear that he brings a rare excitement to the material he teaches, and that enthusiasm is contagious. These student comments can be verified by simply examining the attendance level of the elective courses he teaches. For instance, his undergraduate courses in semiconductor devices are offered as Senior electives, and enrollment has gone from less than 10 students in the class before he came to Auburn, to nearly 30 today. His importance in drawing students to courses in the electronics stem cannot be overemphasized.

He is recognized and respected in the department for his innovative teaching techniques. He includes "real world" team design experiences in all of his classes. Student responses to his teaching methods from both written confidential course evaluations and oral graduation exit interviews for both undergraduate and graduate students (which I personally conduct) have been exceptionally positive. I have attached a separate page on "teaching description and philosophy" that details some of his design projects and future plans for course innovation. One of his teaching "trademarks" is to hand out thoughtful quotations at the end of each lecture, as well as current articles on diverse subjects ranging from education and the job market to current events in other fields of engineering and the sciences. These are intended to gently prod the students to appreciate that life is about more than just electrical engineering. His approach has been especially well-received by his students.

In addition, Professor Cressler has introduced three new courses into the graduate curriculum of the Electrical Engineering Department to bolster their course offerings in his research field of Silicon-based Nano-electronics. These courses include Low-Temperature Electronics I and II (EE 665, EE 666), as well as Silicon-Germanium Heterostructure Devices (EE 690), and are the first

of their kind to be offered at any university. Student response has been overwhelmingly positive.

Professor's Cressler's performance as an educator at Auburn University has been truly exceptional. During his three years on our faculty his students have consistently rated him an outstanding teacher. On a confidential evaluation of his "overall teaching effectiveness", his undergraduate and graduate students have given him an average of 4.88 out of a maximum possible score of 5.00, for twelve different courses at both the undergraduate and graduate level. These numbers far exceed his department's and the College of Engineering's averages.

Professor Cressler's research program at Auburn University is centered on Silicon-based Nano-Electronics, which is expected to have a major impact on the future direction of the electronics industry in the 21st century. Professor Cressler's competence and leadership as a researcher are absolutely outstanding in every respect. While he was employed at IBM Research, one of the premier industrial research laboratories in the world, he was promoted four times over the course of eight and a half years, and received six awards from the IBM Research Division. His independent research at IBM, as well as his performance as a team leader on a number of collaborative programs, resulted in over fifty-five publications in the leading technical journals and conferences in his field. He has published an additional fifty-eight technical papers during the three short years that he has been on our faculty at Auburn University. I consider this a remarkable achievement for a person at this stage of his academic career, and speaks well of his abilities and high caliber as a researcher. He truly is unique amongst the engineering faculty at Auburn University and I strongly believe that he compares favorably with the best and brightest faculty any university can offer.

Professor Cressler has received international recognition in his field of Silicon-based Nano-Electronics. He has done pioneering work in the cryogenic operation of Si and SiGe bipolar technology, and has produced seminal papers on advanced bipolar device theory and technology, SiGe HBT noise properties and radiation toler-

ance, as well as SiGe HBT physics. He has delivered twenty invited papers and lectures on his research. For example, in 1994 he presented a plenary address on SiGe devices to a crowd of over two thousand at the 1994 *International Solid-State Circuits Conference*, the premier international conference in integrated circuit technology. This year he was invited to write a paper on his research for the broad electrical engineering audience. This paper appeared in the March issue of the *IEEE Spectrum*, The Institute of Electrical and Electronics Engineers (IEEE) award-winning publication which has a readership of over 320,000 worldwide. Subsequently, Professor Cressler's paper was awarded first prize in the IEEE prize paper competition for the Alabama Section.

Professor Cressler has been extremely successful in attracting extramural funding for his research. In his three years at Auburn he has been awarded fifteen research and equipment grants, with a total value exceeding \$1,085,000. In 1994, he received the Office of Naval Research Young Investigator Award for his Silicon-Germanium research effort. His award was one of only seventeen awards announced out of a pool of more than 262 applicants. With matching funds, this prestigious ONR award is valued at \$450,000 over three years. Professor Cressler was the first faculty member in the College of Engineering to win a Young Investigator Award. We're understandably proud of his achievements - they have helped put Auburn "on the map" in the Silicon-based Nano-Electronics field. Professor Cressler is currently the Assistant Director of the Alabama Microelectronics Science and Technology Center (AMSTC), the State of Alabama's flagship microelectronics research center, and Director of the Cryogenic Electronics Laboratory within the AMSTC. He has already established extensive research facilities to support his Silicon-based Nano-Electronics program. At present he has eight graduate students working with him on his research projects, and one M.S. student that has already graduated.

Professor Cressler is also highly involved in service activities to the IEEE. He currently serves as a referee for a number of major technical jour-

nals in his field, including: *IEEE Transactions on Electron Devices*, *IEEE Electron Device Letters*, *Solid-State Electronics*, *IEEE Journal of Solid State Circuits*, *Journal of the Electrochemical Society*, and *Microelectronics Journal*. He was recently appointed an IEEE Electron Device Society Distinguished Lecturer and travels internationally to deliver addresses to local IEEE member chapters. In addition, Professor Cressler was elected to Senior Membership in the IEEE in 1991, and is currently serving on the Technical Program Committees of the *IEEE International Solid-State Circuits Conference* (since 1992) and the *IEEE Bipolar/BiCMOS Circuits and Technology Meeting* (since 1994), and the *European Workshop on Low-Temperature Electronics* (since 1995). He was recently named Vice-Chairman of the Technical Program Committee of the 1997 *IEEE International Solid-State Circuits Conference (ISSCC)*, and will assume the distinguished role of Technical Program Chairman of the 1998 *IEEE International Solid-State Circuits Conference*.

Finally, on a more personal note, I would like to comment on Professor Cressler's service to the Auburn community at large. John and his wife Maria are the leaders of the high school youth group (9th - 12th grade) at St. Michael's church in Auburn. In the three years they have led this program, the group has grown in size from about five kids to over forty kids. The group's activities are very diverse and include: weekly meetings on Sunday nights which include spiritual teaching, discussion, and prayer, out of state skiing and camping trips, youth conferences, and service projects in the local community. As examples of service projects, the group has taken part in new home construction for *Habitat for Humanity*, they "adopt" local families for the Christmas season, and have painted three houses for the economically disadvantaged in the past year. John and Maria have been successful with these kids because they sincerely care about them, and believe strongly that the future of this world rests with the youth. Building a sense of community among today's often troubled teens has been their goal from day one, and I think by all accounts they have been overwhelmingly successful. In

addition to his work with the high school kids, John took the time this past fall to work as a team member on a spiritual retreat for inmates in the Staton state prison (with the KAIROS prison ministry). He is also involved with Boy Scouts of America (Troop 30), is an assistant soccer coach in the youth recreational league in Auburn, and is a devoted father to his own three children. I offer these examples of John's extracurricular activities to give you a feel for his character and what he holds important outside of the university environment.

I have solicited a number of students (both current and former) to write letters of recommendation (which I have attached) for Professor Cressler. I think they speak loudly about his qualifications. I have also attached letters of support from Professor Richard C. Jaeger, Distinguished University Professor and head of the Electronics Stem in our department, as well as from Professor John Hung, chair of our department's Teaching Effectiveness Committee. As a means of further support for Professor Cressler's nomination, I have also attached as an addendum in this package four letters of recommendation from eminently qualified external referees from my recently completed nomination package for Professor Cressler's competition in the National Science Foundation's prestigious Presidential Faculty Fellow Awards Program (currently under review).

In summary, I believe that Professor Cressler is one of the bright young stars in the academic arena, and we are honored to have him on the faculty of Auburn University. His impact on the education and research activities of the Electrical Engineering Department at Auburn is pivotal. He clearly possesses the ability and the drive to make enormous contributions to education and research in the years ahead. He is extremely talented, and has already demonstrated his creative ability in a variety of ways. He is, in addition, very service oriented, and actively donates his time and talents to both the IEEE, his students, and the Auburn community at large. I would ask you to give this young man the strongest possible consideration for the C. Holmes MacDonald Outstanding Teaching Award.

Nominations Invited for The Sixth Vladimir Karapetoff Eminent Members' Award



Dr. Vladimir Karapetoff

Nominations for the sixth Vladimir Karapetoff Eminent Members' Award are now being solicited. Nomination forms and guidelines may be obtained from Donald Christiansen, Eminent Member Committee Chairman, 434-A West Main Street, Huntington, N.Y. 11743.

In 1991, the Eta Kappa Nu Board of Directors announced the establishment of an award in honor of Vladimir Karapetoff, an Eminent Member of HKN and Fellow of IEEE, who died in 1948. The first award was given on April 27, 1992.

The award, the Eta Kappa Nu Vladimir Karapetoff Eminent Members' Award, is made annually to an electrical engineering practitioner who has distinguished himself/herself through an invention, a development, or a discovery in the field of electrotechnology. The fund to support the award was initiated through a bequest from Dr. Karapetoff's wife, R. M. Karapetoff Cobb, herself a distinguished chemical engineer.

A monetary honorarium is provided to the recipient (or shared by the recipients) of the award.

Factors that will be weighed by the jury will include the impact and scope of applicability of the invention, development, or discovery; its impact on the public welfare and standard of living and/or global stability; and the effective lifetime of its impact.

Dr. Karapetoff was born in St. Petersburg, Russia, January 8, 1876.

His father was an engineer and his mother a student at a military medical school.

Dr. Karapetoff emigrated to the United States in 1902, and became a naturalized citizen in 1909.

In 1904 he joined the engineering faculty of Cornell University as an assistant professor. In 1908 he was made a full professor and continued in that capacity until he retired from active teaching in 1939.

In an account of Dr. Karapetoff's career, his Cornell University colleagues R. F. Chamberlain, N. A. Hurwitz, and Everett M. Strong, recalled his continuing dedication to Eta Kappa Nu. During World War II he was commissioned a Lt. Commander in the U. S. Navy. But beginning in 1942, Kary, as he was known to his associates, began to lose his sight in both eyes, and despite temporary relief through operations, he ultimately lost his sight and schooled himself in Braille and "talking books."

Even after his blindness he seldom missed the annual Eta Kappa Nu Award dinner in New York City, and would address them in "refreshingly original and lucid expositions" of his technical interests. Fellow HKN members viewed these occasions as sort of a "national Kary reunion." His handicap notwithstanding, his cheerfulness, determination, and ingenuity prevailed.

His colleagues remembered him as an accomplished musician on piano, violincello, and double bass. He toured the country giving recitals

and lectures on Wagner, Liszt, and other major composers, and developed a five-string cello on which violin music could be played. He received an honorary Doctor of Music degree from New York College of Music.

Professor Simpson Linke, writing in the Winter 1984-85 *Engineering Cornell Quarterly*, cited the following excerpt from Karapetoff's *Electrical Laboratory Notes*, published in 1906, as reflective of the flavor of EE studies in that era:

In coming to the laboratory, bring with you a slide rule, an inch rule or tape, a speed counter, a screw driver and a pair of plyers [sic]. This will save you time and trouble of looking for them or borrowing them. Do not forget to have a pocket knife for skimming off wire; a bicycle wrench is also sometimes very handy to have.

Dr. Karapetoff was the author of several standard texts on electrical engineering that were widely used and revised through several editions, as well as other texts on electrical and magnetic currents, electrical testing, and engineering mathematics.

He was a member of AIEE, the Franklin Institute, the AAAS, the American Mathematical Society, the Mathematical Society of America, the American Physical Society, the U. S. Naval Institute, and the U. S. Naval Reserve Officers' Association.

HAROLD A. WHEELER

1996 Recipient

Vladimir Karapetoff
Eminent Members' Award

by Nancy Hantman

Harold A. Wheeler was selected to receive this major Eta Kappa Nu honor based upon his classic automatic volume control circuit, and for his pioneering work in commercial radio and television receivers plus his significant contributions to defense electronics.

Mr. Wheeler received his B.S. degree and his D.Sc. (Hon.) from George Washington University in 1925 and 1972 respectively. He was also awarded honorary degrees by Stevens Institute of Technology (D.Eng., 1978) and Polytechnic University (Dr. Eng., 1992).

Wheeler joined Hazeltine Corporation in 1928, following five years of part-time work while he was a student at George Washington University and Johns Hopkins University. In 1939, he became vice president and chief engineer of Hazeltine. In 1946, he left Hazeltine to found Wheeler Laboratories, where he served as president from 1947 to 1968. In 1959, Wheeler Laboratories was acquired by Hazeltine, and Wheeler was elected a director of the corporation. He was Chairman of the Board from 1965 to 1977, and Chief Executive Officer in 1966. In 1968 he retired as an employee and served as a consultant and chief scientist until 1987.

It was in 1932 that Wheeler was issued the patent for his diode detector and automatic volume control; in all, he has been granted over 180 patents. He is the author of some 100 papers, and the Wheeler Monographs on selected topics in radio and electronics.

A Fellow of the IEEE, Wheeler was elected a Fellow of the Institute of Radio Engineers in 1935 and the American Institute of Electrical Engineers in 1946. He also received the Morris N. Liebmann

Award in 1940 for his analysis of the fundamental limitations on the resolution in television systems and on wide-band amplifiers, and for his basic contributions to the theory and development of antennas, microwave elements, circuits, and receivers; the Microwave Theory and Technique Society's Microwave Career Award in 1975; and the Antenna and Propagation Society's Distinguished Achievement Award in 1992.

He was elected to the National Academy of Engineering in 1986.

He also received the Armstrong Medal from the Radio Club of America, of which he is a Fellow.

During World War II, Wheeler directed the development of the SCR-625 mine detector, used during the war and later in Korea. Two other notable contributions included his derivations of the properties of strip transmission lines, and his development of the concept of the grating-lobe series applied to phased-array antenna design.

When Wheeler Laboratories was acquired by Hazeltine, he brought with him the notable Wheeler Collection, comprising 28 stacks of bound volumes of periodicals and books.

Among the comments of the judges for the 1996 Karapetoff Award was one which recognized Wheeler as a "hero to many of the generation of engineers who followed him," and another about the laboratories that he founded and headed: "Innovation and important technology advances were the norm."

His most recent book is *Hazeltine Corporation in World War II*, published in 1993, in which he makes clear the high regard in which he holds those who worked for and with him.

At the 1996 Eta Kappa Nu Awards Banquet

by
Ralph J. Preiss
Member
Awards Organization Committee

Phyllis Cosentino, Director of Wireless Applications Engineering at Lucent Technologies was recognized as the Outstanding Young Electrical Engineer (OYEE) of 1995 by virtue of her outstanding technical and leadership contributions to the field of wireless communications systems and her dedication to community and professional activities. Harold A. Wheeler, retired CEO of the Hazeltine Corporation received the 1996 Vladimir Karapetoff Eminent Member's Award for his classic automatic volume control circuit work. This all happened at Eta Kappa Nu's 60th anniversary awards banquet which was held on April 22, 1996 at the Princeton Marriott in Princeton, New Jersey. Dr. Robert A. Bartolini, chair of the Awards Organization Committee (AOC), served as master of ceremonies and Dr. Robert I. Egbert, Vice President of the Eta Kappa Nu Association, was a last-minute substitute for Michael R. Hajny, President, when Mr. Hajny had to attend a meeting in Mexico on this very day.

Guests began to arrive after 6:00 PM. They congregated around the no-host bar outside the banquet room and greeted old friends and acquaintances, and met the new award recipients. Another attraction set up by Mrs. Fern Katronetsky, a key member of the banquet committee, were three tables displaying the certificates to be awarded that evening together with the large Eta Kappa Nu bowl on which 60 outstanding electrical engineers' names were inscribed. A small replica bowl inscribed with Phyllis Cosentino's name was also on display.

She will take this with her, but the large bowl remains on display outside the Board Room at IEEE headquarters where it may be viewed by visitors throughout the year.

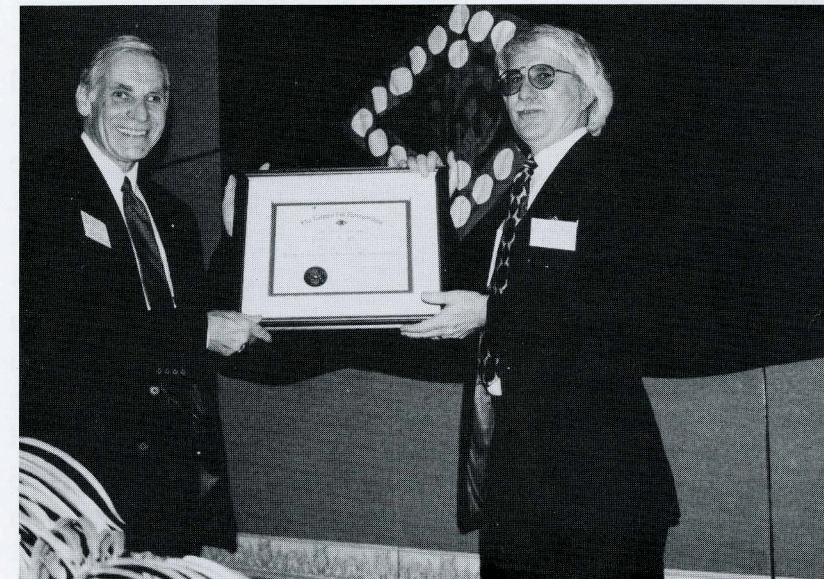
Dr. Bartolini, introduced several people at the dinner who were either former Honorable Mentions, Jurors, or members of the Board of Directors, such as Dr. J. Robert Betten, Executive Secretary; Dr. Bruce Johnson, last year's President; Dr. Jim Carnes, former Juror; Mike Isnardi, 1988 Honorable Mention; Dr. John Henderson, 1977 OYEE, and one of this year's Jurors; Steve Malyszka, another Juror this year; and Mark Adamiak, 1985 OYEE. Dr. Bartolini then bade us to enjoy our dinner for he had a lot of awards to hand out that evening. Other people sitting at the Board of Directors table included Karl E. Marterseck, Dr. Robert Egbert, Dr. Mohammad Shahidehpour, and Bob and Helen Arehart.

At the Karapetoff Award table were Henry and Doris Bachman; Don Christiansen, Chair of the Eminent Members Committee; Nancy Hantman, Fern Katronetsky, and AOC member Dr. Irving Engelson, all on the IEEE HQ Staff, and AOC member Mark Adamiak, GE Company.

We had barely been served our desserts when Dr. Bartolini got the awards ceremony under way by introducing Don Christiansen, chairman of the Eminent Members Committee, who proceeded with the presentation of the Vladimir Karapetoff Eminent Members' Award. [See Karapetoff article elsewhere in this issue.]

After the completion of the Karapetoff award

**Donald Christiansen, Chairman
VKEMA Committee, Announces
that Harold A. Wheeler has been
Named 1996 Recipient of
The VKEMA Award**



**Master of Ceremonies
Dr. Robert Bartolini
Presents Winner's Plaque
to Dr. Henry Bachman
who is standing in for Dr. Wheeler**

**Dr. Bachman expresses thanks
and appreciation in behalf of Harold
Wheeler for this high honor. He
explains that Dr. Wheeler is un-
able to be present due to injuries
incurred in a recent accident**



presentation, Dr. Bartolini called to the podium each of the three Finalists in the 1995 search for the Outstanding Young Electrical Engineer.

The first called to the podium was Dr. Chatschik Bisdikian of the IBM Research Laboratories in Yorktown Heights, New York who was accompanied by his nominator and former manager, Dr. Asser Tantawi. They came up from the IBM table where they were cheered on by Gene Hoffnagle, editor of the IBM SYSTEMS JOURNAL; Dimitrios Pendarakis and Dimitrios Serpanos of the IBM Research Labs; and Joe Strano, New Jersey Institute of Technology and member of the AOC. Bisdikian emerged as a Finalist because of his contributions to advances in the standards efforts in the DQDB (distributed-queue-dual-bus) high speed communications network ANSI/IEEE 802.6 standard, his work on VoD (video-on-demand), and for standard IEEE 802.14, two-way broadband access to residences. His contributions are not only in the performance analyses and simulations of proposed network structures, but also in his tremendous output of well-written publications which help answer the conflicting demands of the technical community and speed up the reaching of a consensus. A native of Greece, Bisdikian received his MSEE in 1985 and DSc in 1988 from the University of Connecticut, Storrs. Besides being a technical speaker in great demand, he has one issued patent and has submitted many more patent applications. He is the author of some forty publications in refereed technical conferences and journals (five alone in the IEEE TRANSACTIONS ON COMMUNICATIONS). Since 1994 he has been on the Editorial Board of TELECOMMUNICATIONS SYSTEMS: MODELING, ANALYSIS, DESIGN, AND MANAGEMENT. He became a father in 1995, and he has acted as captain of canvassers for the United Way charitable fund campaign in his area of residence. Bisdikian plays drums and composes and arranges music when he finds

the time.

The second Finalist called to the podium with his nominator was Frank Lane, accompanied by Dr. John G. N. Henderson, now Chief Scientist of Hitachi America, Ltd. Applauding from the Hitachi table were their wives, Holly Lane and Nancy Henderson, as well as Dr. Jack Fuhrer, Susan Larry, Ivy Pearlstein, and Josh Oslov. Frank Lane, born in New York state, received his BS from Rensselaer Polytechnic Institute in 1987 and his MS from Princeton University in 1989. He worked for Raytheon in the Missile Guidance Laboratory where he developed a high resolution frequency measurement for FFT data for high accuracy measurement of a pulse repetition frequency.

Transferring to Hitachi in 1992, he developed a technique for executing fast visual search for a video recorder which records compressed video bit streams. This provided, for the first time, the capability of the common VCR "fast forward" function for this new type of recording technique. He is also involved in standard setting for the new Advanced Television (ATV) system, including providing the Motion Picture Expert Group's (MPEG) requirements for the proposed standard. He has developed software for MPEG transport verification used in the ATV testing process. Lane has been granted two patents so far and has filed 19 others. He spends many volunteer hours as Cub Scout den leader and is on the committee which coordinates and plans the activities of all the Cub dens in his community. In his spare time, Lane studies and practices creative writing.

The third Finalist called to the podium this year was Thu-Van Luu, accompanied by Kathy Tennar, her supervisor from Lockheed Martin Government Electronic Systems in Moorestown, New Jersey. Applauding them from the Lockheed Martin (Moorestown) table were Tu Luu, Thu-Van's husband; Jeffrey D. Miller, her nominator; Joseph Corso; David Shattuck; Anne Bauman; Bruce Bergenfeld; Tatyana Snyderman; and Janice Gianinni. Across the

**Accompanied by nominator
Dr. Asser Tantawi
Finalist Chatschik Bisdikian
receives
Award Certificate from
Vice President Robert Egbert**



**HKN Vice President Egbert
presents Award Certificate to
Finalist Frank Lane
accompanied by nominator
Dr. John G. N. Henderson**

**Finalist Thu-Van Luu
accompanied by nominator
Kathy Tennar
receives Award Certificate from
Dr. Robert I. Egbert**



way was a second Lockheed Martin (East Windsor) table with Jim D'Arcy, Past President of Eta Kappa Nu and member of the AOC; his wife, Beatrice; and brother John, Pennsylvania State University. Also seated were Steve Malyszka, Director of EW Engineering at Lockheed Martin Astrospace and one of this year's Jurors; with wife, Penny; Mike and Judy Benson; Andrew and JoAnne Markowski; and Bert Sheffield, member of the AOC. Thu-Van Luu was recognized for her valuable contributions to the missile guidance control and simulation for the AEGIS weapons system which resulted, among others, in an increase in its self-protection capability. A native of Vietnam, Thu-Van received her BSEE from Drexel in 1990 and her MSEE from the University of Pennsylvania in 1993. She also participated in the Edison program, an advanced program for exceptional students. At home, besides her activities as a mother, she spends time helping Vietnamese immigrants get assimilated into the American culture, and her American friends to get acquainted with Vietnamese culture. She also plays classical piano and sings in a choir.

The finalists were greeted by Dr. Egbert and then given their framed Finalist certificates. Dr. Bartolini then proceeded to call to the podium Pat Wirth from the AT&T (Holmdel) Labs table who introduced our first Honorable Mention of 1995, Kavitha Chandra, chosen by virtue of her technical contributions to the field of communication networks and for her involvement in community activities. Chandra thanked her parents, her teachers and her mentors for helping her get to where she was. A native of Bangalore, India, she had come a long way to this recognition, and in her acceptance speech she shared the award with the many people who have had an influence on her life. Her biography appeared in the May issue of THE BRIDGE. Also seated very proudly at the AT&T Labs table were Hrair Aldermeshian, Arthur Berger, Gagan Choudhury, Ted Eck-

berg, Danielle Liu, Kathy Meier-Hellstern, Gail Troyer and Charles Thompson.

The master of ceremonies next introduced Professor Maurice Aburdene of Bucknell University, who stated that when Susan Lord first applied to Bucknell for a position in her field, he had to turn her down because there was no such opening. But he liked Dr. Lord's resume so much that in a short time a position was created and he was able to call her back with an offer. Lord, a Finalist last year, was introduced as an Honorable Mention this year by virtue of her outstanding technical contributions to the field of opto-electronics and her dedication to education and promoting the engineering profession for minorities and women. Her contributions also appeared in the May issue of THE BRIDGE. She thanked her parents Arthur and Rose Marie Lord, as well as her younger sister Kathy, and her husband Victor Chang, all seated at the Bucknell table, for always being supportive of her and for letting her do what she was best at. Others at the Bucknell table included W. Dexter Johnson, Laurie Aburdene, and Rose DiGiore. They all congratulated Lord when she returned from the podium carrying her Honorable Mention certificate.

Then Dr. Bartolini switched his position from master of ceremonies to nominator, as he introduced one of last year's finalists, William T. Mayweather, as this year's Honorable Mention, by virtue of his significant technical and leadership contributions to the field of integrated circuit developments and for his dedication to promoting the engineering profession for minorities. The applause from the two David Sarnoff Research Center tables was deafening, coming from Theresa Mayweather and Janice Bartolini --whose husbands were at the podium-- Jerry Janssen, Vice President of Human Resources; and wife, Barbara; Mike Ettenberg, Vice President of the Solid State Division; and wife Marilyn; Jim Carnes, President and CEO of DSRC; and Mike Isnardi, now a Group Head at DSRC; Hank and Patricia Miiller; Rod and

**Introduced by Pat Wirth
Honorable Mention Winner
Kavitha Chandra
receives
Award Certificate from
Vice President Robert Egbert**



**Having provided the introduction
Professor Maurice Aburdene smiles
as HKN Vice President Egbert
presents Award Certificate to
Honorable Mention Winner
Susan Lord**

**Introduced by Dr. Robert Bartolini
Honorable Mention Winner
William T. Mayweather, III
receives Award Certificate from
Dr. Robert I. Egbert**





1995 OYEE WINNER
Phyllis L. Cosentino
receives Winners Certificate
from Vice President Egbert
while accompanied at the podium
by Ron Garriques

OYEE Winner Phyllis Cosentino
assisted by Ron Garriques
displays large HKN Bowl
engraved with all
OYEE Winner's names
as Dr. Robert Egbert observes



1995 Winner Phyllis Cosentino
in her response from the podium
provided remarks and observations
that touched all hearts and were
truly inspiring



Karen Angle; Maurice Caldwell; Michele Ware; Alice Archer; and Cori Moore.

Mayweather, in his response, pointed out that his two other siblings are also high achievers, and that he attributes this to a loving, encouraging, and self-sacrificing family and teachers who were able to encourage the youngsters to achieve success in their lives. In his work with young disadvantaged students, he hoped to pass this tradition on. Mayweather's achievements are included in the May issue of THE BRIDGE.

Finally Dr. Bartolini brought the large Eta Kappa Nu Bowl to the podium, together with the small bowl and certificate. He was then ready to welcome Ron Garriques of Lucent Technologies in Whippany, New Jersey, who had the task of introducing the 1995 Outstanding Young Electrical Engineer, Phyllis L. Cosentino. David Poticny, her nominator, could not be at the banquet this year. Cosentino's achievements are described in the May issue of THE BRIDGE. Dr. Bartolini then announced that among the well wishing correspondence that had arrived was one addressed to Cosentino from the White House, with greetings from President Clinton. In her acceptance speech, which we expect to publish in some future issue of THE BRIDGE, she pointed out that she remembered when she first arrived at the AT&T Bell Labs (now split off from Lucent Technologies), her first office mate had asked her what she had hoped to be doing many years hence. Phyllis was taken aback and could not answer that question immediately. Her office mate then classified her as an independent thinker/explorer, like a Japanese samurai freed from his overlord, able to roam the land... Cosentino only understood the truth of this analogy much later: The field she chose, wireless digital communications, was so different from AT&T's traditional wired analog telephony that it provided her with the freedom to explore an uncharted path. She was so fortunate that her family, especially her husband, Tony,

provided her with the proper stimulus and support to allow her to achieve the position she now occupies at Lucent, and which still permits her to devote time to personal growth and for giving to the community. She received many congratulations when she returned to the Lucent Technologies table, where Tony Cosentino, Hank Menkes, Cindy Billy, Tien and Diane Hou, Paul Comric, and Barbara Bilardello were also seated.

With all the awards having been handed out, the master of ceremonies closed the banquet with the request to see many of the dinner attendees at next year's presentation ceremonies. There still remained another half an hour to chat with colleagues and friends before all took their separate roads home.

EDITOR'S NOTE (POST SCRIPT): Engineering changes are a fact of life for any engineer involved in any design work. If a needed part in a design is not being manufactured anymore, another part has to be substituted. Other reasons for using a substitute include better quality, reliability, cost, a planned future enhancement, or to meet an international standard. But you ask, "What does this have to do with the banquet?" Well, this article represents an engineering change to the May BRIDGE article, and to OYEE brochures and the Karapetoff Award brochures distributed at the banquet. Changes for the banquet were introduced verbally from the podium, but historians discovering the brochures or the article hundreds (or thousands) of years hence, would get the wrong idea of what really happened. Unless, of course, they also found this article, in this next issue of THE BRIDGE. Here are the real details:

1. Between the cut-off date for accepting articles for the May issue of THE BRIDGE and the banquet itself, the company name of our Outstanding Young Electrical Engineer changed. The original name, AT&T, appears in the article, and also in the brochures distributed at the banquet.

2. Due to an accident, Harold Wheeler, the recipient of the Karapetoff Award could not make it to the banquet, so Dr. Henry L. Bachman, his nominator, stood in for Dr. Wheeler and received the plaque and award check in his stead. The brochures state that Dr. Bachman introduced, President Hajny conferred the award, and Dr. Wheeler responded. Regrettably, Dr. Wheeler did not recover: He passed away a short time later.

3. I already informed you that Michael Hajny was in Mexico; but his name is listed in both brochures as conferring the award plaques. Instead, Dr. Robert Egbert did the honors.

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