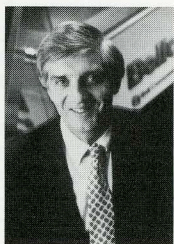


# BRIDGE of Eta Kappa Nu



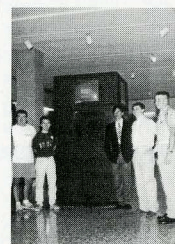
**George H. Heilmeier**  
**1993 Winner**  
**Vladimir Karapetoff Eminent Members' Award**



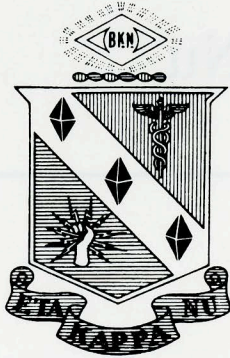
**Also Featured:**

**Robert W. Lucky Honored**  
**With HKN Eminent Membership**

**Gamma Mu's Certificate**  
**of Merit Report**



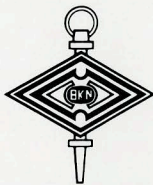




Editor and Business Manager  
**J. Robert Betten**

August 1993  
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Contributing Editors  
**Donald Christiansen**  
**Alan Lefkow**  
**Ralph J. Preiss**



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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**3** HKN Eminent Member Listing

**The HKN Membership Fee is \$25**

which includes a 2 year initial subscription to BRIDGE as determined in the 1991-92 HKN MAIL Convention

## 1992-93 Special Mail Convention

### National Constitution Revisions Unresolved

135 Chapters sent in ballots.

142 ballots were required for resolution

(Needed 3/4 of 189 chapters to pass).

**Many, many thanks to each chapter**

**that sent in a ballot!**

**We will try again this year.**

## Eminent Member Listing: 1950 – 1993

EMINENT MEMBER	DATE INITIATED	TITLE AND AFFILIATION	THE BRIDGE		
			VOL.	NO.	PG.
V. BUSH	1-30-50	PRESIDENT, CARNEGIE INST. OF WASHINGTON	46	3	1
R. W. SORENSON	"	PROF. E.E., CALIFORNIA INST. OF TECHNOLOGY	"	"	"
V. K. ZWORYKIN	"	V. P. RCA LABORATORIES	"	"	"
F. E. TERMAN	1-22-51	DEAN, STANFORD UNIVERSITY	47	3	5
J. SLEPIAN	"	ASSOC. DIR. RES., W. E. CORP	"	"	"
K. B. MCEACHRON	"	MGR., GE CO. TRANSFORMER DIVISION	48	2	4
S. H. MORTENSON	"	CHIEF E.E., ALLIS CHALMERS MFG. CO.	"	"	5
W. H. TIMBIE	"	PROF. RETIRED; M.I.T.	"	2	5
L. DEFOREST	5-2-52	INVENTOR	48	3	1
E. C. MOLINA	1-19-53	BELL TELEPHONE LABORATORIES	49	2	9
H. PENDER	"	DEAN, MOORE SCHOOL U OF PENNSYLVANIA	"	"	10
C. A. POWEL	"	ASS'T. TO V.P.; WESTINGHOUSE ELECTRIC CORP.	"	"	12
P. SPORN	"	PRESIDENT, AMERICAN GAS & ELECTRIC COMPANY	"	"	13
W. R. G. BAKER	1-18-54	V.P. GENERAL ELECTRIC COMPANY			
M. J. KELLY	"	PRESIDENT, BELL TELEPHONE LABORATORIES			
R. RUDENBERG	"	PROFESSOR EMERITUS, HARVARD UNIVERSITY			
J. B. BLACK	4-20-54	PRESIDENT, PACIFIC GAS & ELECTRIC CO.	50	4	14
A. A. POTTER	10-16-54	DEAN EM., PURDUE UNIVERSITY	51	3	26
E. B. PAINE	"	PROF. EM., UNIVERSITY ILLINOIS	"	"	"
E. S. LEE	"	DIRECTOR ENGR'G.; G.E. CO.	"	"	"
E. F. W. ALEXANDERSON	1-31-55	RETIRED, GENERAL ELECTRIC CO.	51	3	14
A. N. GOLDSMITH	"	CONSULTANT	"	"	16
H. S. OSBORNE	"	BELL TELEPHONE LABORATORIES	"	"	18
H. A. WINNE	"	V.P. RETIRED GENERAL ELECTRIC CO.	"	"	20
J. B. WHITEHEAD	"	JOHNS HOPKINS UNIVERSITY	"	"	19
H. H. BEVERAGE	10-5-55	DIRECTOR RADIO RES., RCA LABORATORIES	52	1	19
L. N. MCCLELLAN	"	CHIEF ENGR., BUREAU OF RECLAMATION	"	"	19
W. D. COOLIDGE	1-30-56	ASS'T. DIR. RESEARCH LABS., G.E. CO.	52	3	12
H. NYQUIST	"	ASS'T. DIR. SYSTEMS, AT&T	"	"	14
L. N. BRILLOUIN	"	DIR. ELECTRONICS, IBM	"	"	12
J. H. DELLINGER	10-3-56	CH. RADIO TECHNICAL COMMISSION OF AERONAUTICS	53	2	14
W. B. KOUWENHOVEN	"	PROF. EM., JOHNS HOPKINS	"	"	15
D. A. QUARLES	10-14-58	U.S. DEPUTY SECRETARY OF DEFENSE	55	2	29
C. F. HOOD	10-30-58	PRESIDENT, UNITED STATES STEEL CORP.	"	"	33
P. L. ALGER	4-2-60	RETIRED, GENERAL ELECTRIC CO.	56	4	10
C. STARR	10-29-60	PRESIDENT, ATOMICS INTERNATIONAL	57	2	17
A. D. MOORE	9-10-61	PROFESSOR, UNIVERSITY OF MICHIGAN	58	2	18
J. L. BURNES	11-14-61	PRESIDENT, RCA	58	2	15
J. HILLIER	11-17-61	V.P. RCA LABORATORIES	58	1	23
C. F. WAGNER	11-20-61	CONSULTING ENGR. WESTINGHOUSE ELECT. CORP.	58	2	17
J. BARDEEN	3-29-62	PROFESSOR, UNIVERSITY OF ILLINOIS	58	4	10
L. V. BERKNER	"	PRESIDENT, GRADUATE RESEARCH CENTER, S.W., DALLAS	"	"	10
E. M. PURCELL	"	GERHARD GADE PROFESSOR, HARVARD UNIVERSITY	"	"	10
J. B. WIESNER	10-10-62	DIRECTOR RESEARCH LAB. FOR ELECTRONICS, M.I.T.	"	"	10
E. WEBER	11-5-62	PRESIDENT, POLYTECHNIC INSTITUTE OF BROOKLYN	59	2	17
G. S. BROWN	3-25-63	DEAN, M.I.T.	59	4	6
W. L. EVERITT	10-30-63	DEAN, UNIVERSITY OF ILLINOIS	61	2	15
L. A. DUBRIDGE	8-25-64	PRESIDENT, CALIFORNIA INSTITUTE OF TECHNOLOGY	"	"	21
J. A. STRATTON	11-5-64	PRESIDENT, MASSACHUSETTS INSTITUTE OF TECHNOLOGY	62	3	14
D. G. FINK	11-4-65	GENERAL MGR., I.E.E.E.	63	2	8
S. RAMO	8-25-66	VICE CHAIRMAN OF BOARD, TRW INC.	63	3	7
W. E. KOCK	11-3-66	VICE PRESIDENT & CHIEF SCIENTIST, BENDER CORP.	64	3	8
G. H. BROWN	11-2-67	EXEC. V.P., RCA	65	2	3
W. H. PICKERING	8-22-68	DIRECTOR, JET PROPULSION LABORATORY	65	3	8
H. E. EDGERTON	11-7-68	PROF. EMER., M.I.T.	66	3	8
E. R. PIORE	11-6-69	V.P. & CH. SCIENTIST, IBM CORP.	67	1	6
P. E. HAGGERTY	8-20-69	CHAIRMAN OF BOARD, TEXAS INSTRUMENTS, INC.	69	1	14
W. CISLER	3-19-69	CHAIRMAN OF BOARD, THE DETROIT EDISON CO.	70	3	11
E. L. KANOUSE	8-17-70	CHIEF ENGINEER, L. A. DEPARTMENT OF WATER & RIVER	71	2	5
E. C. JORDAN	4-24-74	HEAD OF E.E. DEPT., UNIVERSITY OF ILLINOIS	72	1	12
E.T.B. GROSS	4-6-76	PHILIP SPORN PROFESSOR OF POWER ENGINEERING, RPI	76	2	15
EDWARD A ERDELYI	1978	PROFESSOR, E.E., UNIVERSITY OF COLORADO	81	3	19
LARRY DWON	1984	DIRECTOR, ENG'G. MANPOWER AMERICAN ELECTRIC POWER	81	3	19
HOWARD SHEPPARD	1984	VICE PRESIDENT, RUMSEY ELECTRIC CO.	81	3	19
S. REID WARREN	1984	VICE PRESIDENT FOR ENG'G. UNIVERSITY OF PENNSYLVANIA	82	3	19
DONALD CHRISTIANSEN	1985	EDITOR AND PUBLISHER, IEEE SPECTRUM	83	3	24
MARCUS DODSON	9-13-86	ENGINEER, LOS ANGELES WATER & POWER CO.	84	4	8
WILLIAM E. MURRAY	9-19-87	PRINCIPAL STAFF ENGR. DOUGLAS AIRCRAFT CO.	89	3	6
BERTHOLD SHEFFIELD	4-18-93	CONSULTANT, SENIOR ENGINEER, RETIRED, RCA	89	4	5
ROBERT W. LUCKY	4-18-93	VICE PRESIDENT, BELLCORE			





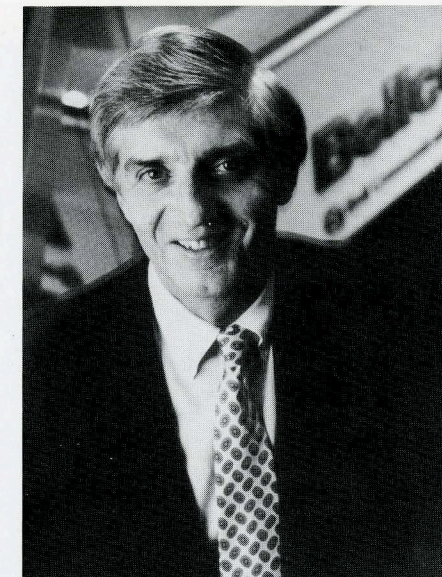
HKN President, Laureen Parker, presents Eminent Member Certificate to Dr. Robert W. Lucky

## Robert W. Lucky Inducted Eminent Member in the Eta Kappa Nu Association

### EMINENT MEMBER INDUCTION CEREMONY

New Brunswick, New Jersey

April 18, 1993



### Citation

In recognition of his outstanding technical achievements in the field of Communications Research during his long professional career, his technical and managerial contributions, making technology available to the general public, and because of his involvement and leadership in Electrical Engineering Societies, including his service as Executive Vice President of the Institute of Electrical and Electronics Engineers, and as Eta Kappa Nu Board Member

### Biography

Robert W. Lucky is vice president, applied research, for Bellcore. Dr. Lucky is an expert on communications technology and former executive director of the Communications Sciences Research Division at AT&T Bell Laboratories in Holmdel, NJ.

He is well known as inventor of the adaptive equalizer, a distortion correcting technique in use for all high-speed data transmission.

Dr. Lucky won recognition in the Outstanding Young Electrical Engineer Award program of Eta Kappa Nu in 1967. He serves on the HKN committee that screens nominations for the outstanding young engineer award, and he is a member of the HKN Eminent Members' Committee that reviews nominees for the Vladimir Karapetoff Eminent Members' Award.

He has also been active in IEEE, serving as Editor of the *Proceedings* of the IEEE; vice president, publications; and executive vice president. He also was president of the IEEE Communications Society. Dr. Lucky was elected a Fellow of the IEEE in 1972 for his contributions to the theory and practice of data communications.

Dr. Lucky is known for his skill in making technology accessible and intelligible to the general public. He is

the author of *Silicon Dreams*, a popular treatise covering advanced technology with emphasis on end applications of electronics. He has also appeared frequently on public television programs.

Among the honors and awards he has received are: the Marconi International Fellowship Award, 1987; the USAF Medal for Exceptional Civilian Service, 1990; the Communications Society Armstrong Award, 1975; and the IEEE Centennial Medal, 1984.

Dr. Lucky is a member of the National Academy of Engineering. He has written or co-authored more than 50 papers on data communications and writes a bimonthly column, "Reflections," for *IEEE Spectrum*.

A recent book published by IEEE Press, *Lucky Strikes...Again*, is based on his *Spectrum* Columns.

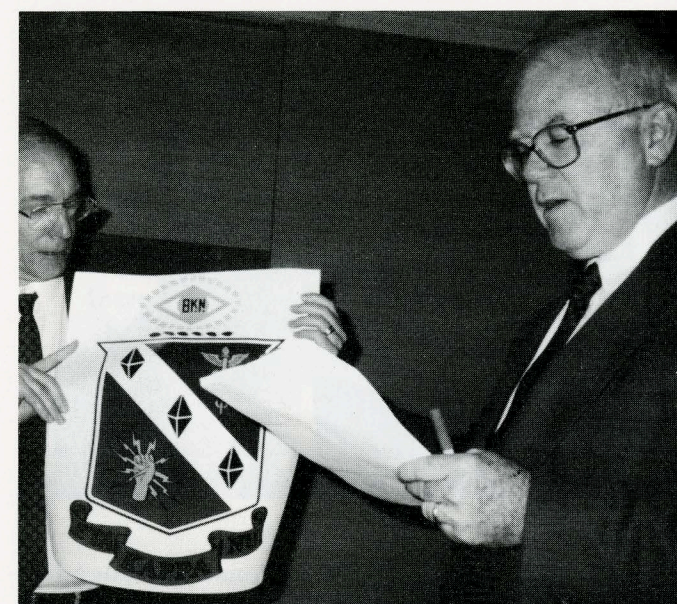
Dr. Lucky earned his BSEE, MSEE, and Ph.D. degrees from Purdue University, and was named a Distinguished Engineering Alumnus in 1969. He was further honored by Purdue with a Doctorate of Engineering (Hon.) in 1988, and by the New Jersey Institute of Technology with a Doctorate of Science (Hon.) in 1991.

In his spare time, Dr. Lucky is an avid "computerist," plays the violin and piano, and is an enthusiastic biker.





**Photos:** At top left, Eminent Member Robert Lucky expresses thanks; and at top right, Vice President David Meyer displays HKN Shield, while Past President James D'Arcy describes symbolic meaning. At top right, President Laureen Parker reads citation. At center left, James D'Arcy and Dr. Lucky during ceremony; and at center right, Dr. Lucky with Dr. David Meyer and Ms. Laureen Parker. At bottom right, Dr. Lucky is surrounded by HKN Directors, Dr. David Stephenson at far left, Mr. Dennis Leitterman at center left, Dr. Robert Bartolini at center right, and Dr. Billie Ball at far right.



**Photos above:** Ceremonial Team Members induct Eminent Member, Robert Lucky. At top left, Vice President David Meyer displays HKN Shield, while Past President James D'Arcy describes symbolic meaning. At top right, President Laureen Parker reads citation. At center left, James D'Arcy and Dr. Lucky during ceremony; and at center right, Dr. Lucky with Dr. David Meyer and Ms. Laureen Parker. At bottom right, Dr. Lucky is surrounded by HKN Directors, Dr. David Stephenson at far left, Mr. Dennis Leitterman at center left, Dr. Robert Bartolini at center right, and Dr. Billie Ball at far right.





# George H. Heilmeier is 1993 Winner Vladimir Karapetoff Eminent Members' Award

by Donald Christiansen



George H. Heilmeier was presented the 1993 Vladimir Karapetoff Eminent Members' Award on April 19th in a ceremony at the Hyatt Regency, New Brunswick, N.J. It is the major award presented by Eta Kappa Nu for career-long accomplishment. It is made in recognition of an invention, development, or discovery in the field of electrical engineering that has had a major impact on society through the improvement of standard of living, the public welfare, and/or global stability.

Dr. Heilmeier was selected for his work in the field of liquid crystals. The jury of award cited Dr. Heilmeier as "an outstanding engineer whose career focus has been on developing and bringing to fruition cutting-edge technologies in the field of electro-optics. His major discoveries in the field of liquid crystals made possible the liquid crystal display, used in a variety of formats in industrial, military, and consumer products around the world." The jury recognized the importance of Dr. Heilmeier's discoveries in enhancing standard of living and quality of life in many areas of the globe.

Dr. Heilmeier is president and chief executive officer of Bell Communications Research, Inc., a research consortium owned by the seven regional Bell operating companies. He received the David Sarnoff Award in recognition of his discovery of several new electro-optic effects that led to displays for calculators, watches, and other electronic products.

He received the BSEE degree from the University of Pennsylvania in 1958, the M.S. degree in engineering from Princeton University in 1961, and the Ph.D. degree in 1962. He joined RCA Laboratories in 1958, where from 1965 to 1968 he was director of solid state device research.

Dr. Heilmeier was named a White House Fellow in 1970 and served as special assistant to the Secretary of Defense until 1971. From 1971 to 1975 he was Assistant Director of Defense Research and Engineering in the Office of the Secretary of Defense. Then, for two years,

he served as Director of the Defense Advanced Research Projects Agency.

Following his government service he returned to industry as vice president for research, development, and engineering for Texas Instruments, where in 1983 he was made senior vice president and chief technical officer. In 1991, he joined Bell Communications Research in his present position.

Dr. Heilmeier has served as a member of the Defense Science Board, the Air Force Science Advisory Board, and the advisory group on electron devices of the Department of Defense. He is the holder of some 30 patents relating to liquid crystals, ferroelectric devices, and display structures, and the author or co-author of more than 70 publications relating to liquid crystals or other physical/electronics subjects.

He received the David Sarnoff Award in 1969, the IR-100 new product award of the Industrial Research Association in 1968-69, and the Distinguished Civilian Service Award from the Defense Department in 1975. Dr. Heilmeier is a Fellow of the IEEE and a member of the National Academy of Engineering, Sigma Xi, Tau Beta Pi, and Eta Kappa Nu. He was named Eta Kappa Nu's Outstanding Young Electrical Engineer in 1968.

The Karapetoff award was established in honor of and through the estate of Vladimir Karapetoff, an Eminent Member of Eta Kappa Nu and a Fellow of the IEEE. The fund to support the award was initiated through a bequest of Dr. Karapetoff's widow, R. M. Karapetoff Cobb, herself a distinguished chemical engineer. Dr. Karapetoff emigrated from his native St. Petersburg, Russia, in 1902, became a U.S. citizen in 1909, and was a professor at Cornell University until his retirement in 1939.

Eta Kappa Nu is currently soliciting nominations for the 1994 award. The award is accompanied by a handsome stipend. Nomination forms may be obtained from: Donald Christiansen, Chairman, Eminent Members' Committee, 434A West Main Street, Huntington, N.Y. 11743, FAX: 516-385-4940.

Dr. George H. Heilmeier  
introduced as 1993 Vladimir  
Karapetoff Award Winner



Winner Heilmeier receives  
Karapetoff Award Certificate  
from HKN President  
Laureen Parker

Dr. Heilmeier expresses his  
thanks while addressing  
audience.





# OYEE AWARD DINNER

by **Ralph Preiss**  
Chairman Award Organization Committee

The 1992 Outstanding Young Electrical Engineer Awards were presented at the HKN Annual Awards Banquet held at the Hyatt Regency New Brunswick, New Jersey on Monday, April 19, 1993. Patrick O. Nunally, Intellisys Automation Inc., Diamond Bar, California, was honored as the 1992 OYEE. Phyllis Lutostanski Cosentino, AT&T Bell Laboratories, Naperville, Illinois, and Gail R. Lalk, Bellcore, Morristown, New Jersey, were awarded Honorable Mentions. Donald E. Bossi, United Technologies Research Center, East Hartford, Connecticut, David L. Thomson, AT&T Bell Laboratories, Naperville, Illinois, and Christopher P. Yakymyshyn, GE Research and Development Center, Schenectady, New York were introduced as Finalists for the first time. All of the above were selected in a two-tier process from over a hundred nominations which were solicited and received by the Awards Organization Committee in 1992.

The 1993 Vladimir Karapetoff Eminent Members' Award was also presented at the annual banquet, to George H. Heilmeyer, chief executive officer of Bell Communications Research. Heilmeyer holds some 30 patents relating to liquid crystals, ferroelectric devices, and display structures, and was recognized by Eta Kappa Nu in 1968 as the OYEE. [See Karapetoff article elsewhere in this issue.]

James A. D'Arcy, past National President of the Eta Kappa Nu Association, served as Master of Ceremonies, and John H. Powers, Executive Director and General Manager of the Institute of Electrical and Electronics Engineers, gave the keynote address. Laureen H. Parker, current HKN National President and, a member of the Jury that selected the awardees, bestowed the certificates.

From the accomplishments of the awardees, one can only surmise that the sluggish recovery and belt-tightening being experienced by the engineering community at the current time must soon come to an end. All of them are hard at work inventing new products or new processes which will surely enhance the employment picture. This, together with the keynote address, indicating the plans the IEEE is mounting to enter the twenty-first century, in a more peaceful international cooperative and interdependent atmosphere than we have ever had in the twentieth century, convinced the banquet attendees, that the future for continuing engineering education is in good hands.

Patrick O. Nunally, the Outstanding Young Electrical Engineer of 1992, was being honored for his entrepreneurial contributions to signal processing and microelectronics design in the area of pattern recognition and vision processing. When the neural-net device which he developed for a military application in the 1980's was not needed anymore by General Dynamics Corporation, his employer, he was encouraged to pursue civilian uses for the device by founding E-Metrics, an independently operated subsidiary of the company. E-Metrics has since been sold to Hughes Aircraft. He subsequently switched his entrepreneurial skills to co-founding Intellisys Automation Inc., where he developed a personal people meter system that monitors total media exposure (TV, radio, etc.) for the Arbitron Corporation.

In addition to the time he spends on technical and business problems, he still finds time to obtain teaching credentials and to teach an analog course. Furthermore, he assumed responsibility for establishing the core curriculum for a new electronics technology associate program for Coastline Community College. He also acts as a mentor for the Future Scientists and Engineers of America, and serves as vice-chair of the IEEE LA Section of the Engineering Management Society, among others.

Nunally had been nominated three years earlier by H. P. Schmid of General Dynamics, who had to forgo witnessing the culmination of the nomination process, the actual awarding of the winning bowl and certificate, because of a business commitment. Instead, Patrick was introduced to the banquet guests with well-wishes by Robert Bartolini, a member of the Awards Organization Committee.

The first 1992 Honorable Mention introduced at the banquet was Phyllis Lutostanski Cosentino, currently Technical Manager of International Wireless Switching Systems Engineering for AT&T. Mrs. Cosentino had worked earlier on voice band transmission problems on the public switched telephone network and thus is thoroughly versed in both the "wired" and the "wireless" part of telecommunication. One innovation her team accomplished was to detect and provide cellular phone service to customers roaming outside of their service area, and, of course, to provide proper billing information to the pertinent local offices just seconds after call completion. In her management position, she is in a good position to influence world-wide cellular telephony

**Phyllis L. Cosentino**  
Receiving  
Honorable Mention  
Certificate  
from HKN President Parker



**Gail R. Lalk**  
Receives  
Honorable Mention  
Certificate  
from Laureen Parker

deployment, an expanding business for her company. Her outside-of-work interests, among others, include tutoring disadvantaged students; mentoring, through outreach programs and adopt-a-school programs, for minority students interested in computer science or engineering as a profession. She also plays the clarinet in community orchestras.

She was nominated by D. M. Poticny, Vice President of Technical Support, and introduced by Dr. Talmage P. Bursh, AT&T Department Head of Wireless Base Station Systems Engineering.

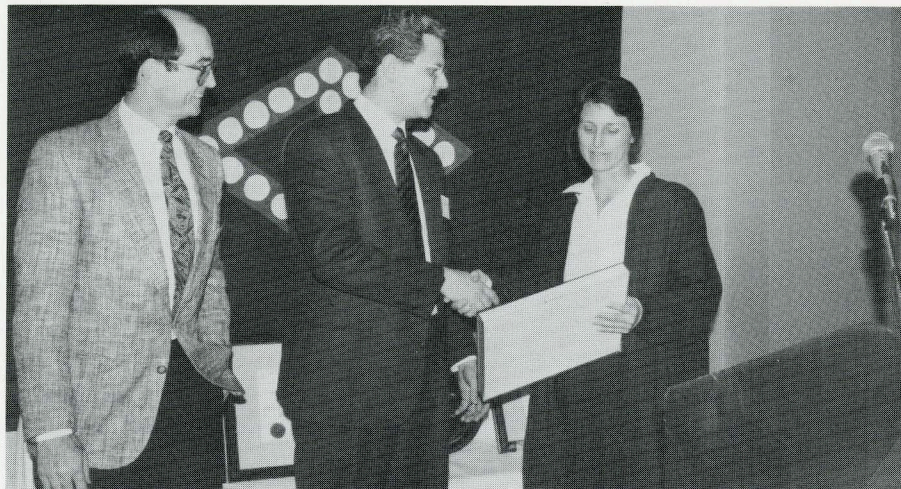
The second 1992 Honorable Mention introduced at the banquet was one of last year's finalists, Gail R. Lalk, a researcher at Bellcore, who is currently involved with the AURORA Gigabit Testbed, one of five national gigabit testbeds being constructed as part of the National Research and Education Network. Her technical field is optical electronics and as editor of the Laser and Electro-Optics Society Newsletter, which is read internationally, she does have a direct influence on publicizing developments in the field, and thereby contributing

to the field's progress. In addition, she organizes and leads discussion groups on such topics as the ethical and moral implications of advanced communications technologies, and volunteers as mentor for undergraduate students assigned to her laboratory, and participates in community charity drives and walkathons.

Mrs. Lalk was nominated by P. F. Liao, Assistant Vice President of Network Research. She was introduced this year by her direct supervisor, Dr. Kenneth C. Young, Jr.

Among the three first-time finalists selected were Donald E. Bossi, developer of device structures and fabrication processes for integrating various photonic and electronic components on a single gallium arsenide substrate for use in fiber-optic communication/control systems. Dr. Bossi is known for his congeniality and acts as mentor for young engineering students. He was nominated by Anthony J. DeMaria, assistant Director of Research for Electronics & Photonics Technologies at the United Technologies Research Center in East Hartford, Connecticut, and was accompanied to the





**Donald E. Bossi  
Receives  
Finalist Certificate**



**David L. Thomson  
Receiving  
Finalist Certificate**



**Christopher Yakymyshyn  
Receives  
Finalist Certificate**

podium to receive his certificate by Leon Newman, Manager, Photonic Systems, his direct supervisor.

David L. Thomson, the second finalist, was chosen for his work in speech processing, which led to the development of a speech recognizer used by AT&T in an automated operator for collect calls. He is a holder of six patents and of one patent application. Mr. Thomson regularly volunteers as sign language interpreter for the deaf, presides over a young single adults

group and sings in his church choir. He was nominated by M. Iwama, Chief Technical Officer for Switching Systems at AT&T Bell Laboratories in Naperville, Illinois, and was accompanied to the podium by his immediate supervisor, Dr. Judy Tschirgi.

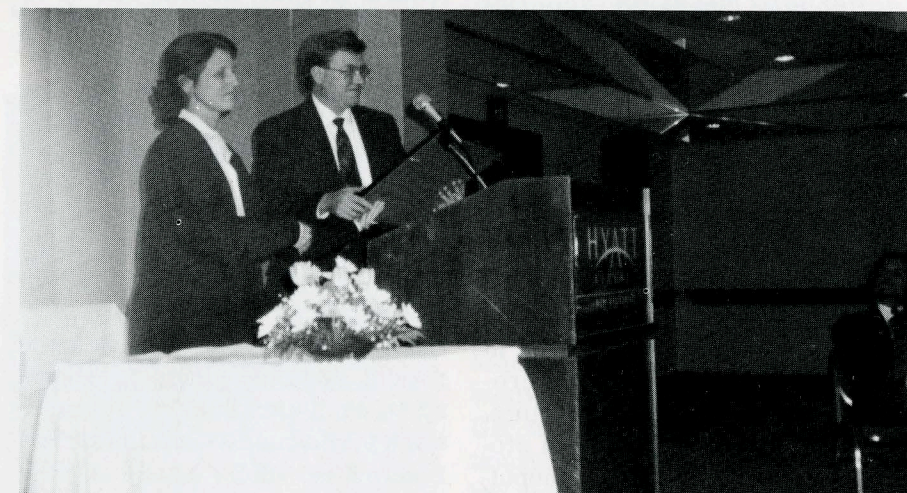
Christopher P. Yakymyshyn, the third finalist, was recognized for his team's effort in overcoming stability problems in dimethyl amino stilbazolium tosylate (DAST) for use as an electro-optic material. This mate-

**Patrick O. Nunally  
Examines  
Commemorative Bowl  
Inscribed With Names  
of All  
OYEE Winners**



**Patrick O. Nunally  
Receives Personalized  
Inscribed Bowl**

**OYEE Winner,  
Patrick O. Nunally,  
Addresses Audience**



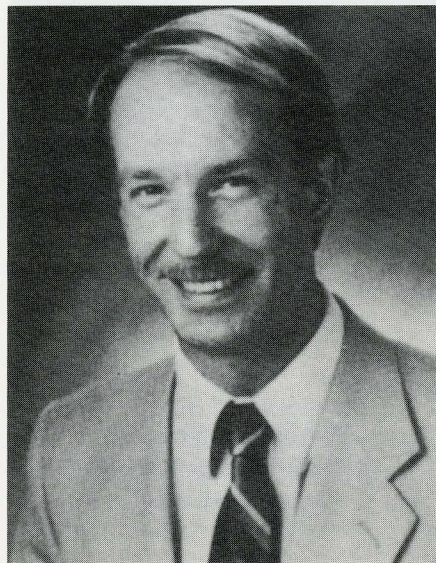
rial has an electro-optic figure of merit roughly twelve times that of lithium niobate, and has become the basis for a new generation of high-performance spatial light modulators. After work, Dr. Yakymyshyn is involved in efforts to direct site selection for a low-level radioactive waste facility. He was nominated by Dr. Walter H. Berninger, Manager of the Engineering Physics Research Center of the General Electric Research and Development Center in Schenectady, New York, and

was accompanied to the podium by the Center's Laboratory Manager, Dr. Kirby G. Vosburgh.

As indicated above, all the awardees were persons who qualified not only for technical reasons, but also for leading a well-rounded life, and contributing to the well-being of the communities in which they reside. They thus have a direct impact on both the general economy and on the quality of life. May they be successful for evermore!



# NEW OFFICERS AND DIRECTORS



**David G. Meyer**  
**President**

David G. Meyer received the B.S. degree in electrical engineering in 1973, the M.S.E. degree in electrical engineering in 1975, the M.S. degree in computer science in 1979, and the Ph.D. degree in electrical engineering in 1981, all from Purdue University, West Lafayette, Indiana. In 1982, he joined the School of Electrical Engineering at Purdue University, where he is currently an associate professor specializing in advanced architecture microprocessors, computer architecture, electro-acoustics, digital signal processing, parallel processing computer systems, and educational delivery systems.

Dr. Meyer is a member of the Institute of Electrical and Electronics Engineers (IEEE) professional society, the Audio Engineering Society (AES), the Association of Computing Machinery (ACM), and the American Society for Engineering Education (ASEE). He is also a member of the Eta

Kappa Nu electrical engineering honorary society and Tau Beta Pi engineering honorary society. He has served as a faculty advisor for the local student chapters of both HKN and IEEE.

Dr. Meyer has developed two new courses in the computer engineering area: a graduate course on advanced architecture microprocessors, and a digital systems senior project course. In addition, he has completely revised the introductory lecture/lab course on microprocessors and made major contributions to the introductory lecture/lab course on logic design.

Dr. Meyer has won over ten teaching awards in his career. In 1987, he was the national recipient of the Eta Kappa Nu C. Holmes MacDonald Outstanding Teaching Award. In 1986, he was one of 11 national recipients of Digital Equipment Corporation's "Incentives for Excellence" Award. This award has allowed Dr. Meyer the opportunity to improve laboratory facilities and to experiment with interactive laser videodisc instructional delivery systems.

Dr. Meyer has published two research book chapters, eight journal articles, thirty-two conference papers, and nine technical reports since his appointment to a tenure track position in 1983. Dr. Meyer has received research grants from IBM for studies in parallel/distributed computing, from the Indiana Corporation for Science and Technology for development of advanced robot control hardware and software, and from Digital Equipment Corporation for the development of computer-aided educational delivery systems. He has been the Principal Investigator or Co-Principal Investigator on numerous

research contracts, and he has received valuable equipment grants for curriculum development.

The need to adapt presentation of course material to students with different backgrounds and abilities and the need to teach in the "visual arena" have motivated Dr. Meyer to push for use of "multimedia" in education. Three years of equipment funding from Digital Equipment Corporation followed by three years of Creative Undergraduate Instruction Project funding from the Dean of Engineering have facilitated the creation of a cost-effective testbed system for multimedia instructional delivery at Purdue's School of Electrical Engineering. This testbed system, called the "Videojockey Multimedia Delivery System" (VMDS), provides electronic delivery of multi-media instructional materials to various classrooms, and provides students *outside of class* with *selectable access* to the same multimedia instructional materials used during lecture—e.g., still frames or motion segments stored on laser videodisc, videotaped demonstrations, "electronic field trips," etc. Remote access to the database of multimedia materials is provided using an existing in-house closed circuit cable-TV network coupled with the Engineering Computer Network (ECN).

VMDS distributes multiple channels of video sources to individual laboratory workstations as well as various lecture and computer terminal rooms. One of the ECN lab host computers supports a user interface that: (1) provides a menu of still frames and videotaped segments currently available, (2) schedules the frame/segment for "broadcast" over the in-house cable TV network, and (3) autolocates the videodisc

and videotape playback units to find the selected frames and/or segments. A text window is available that can either provide additional "annotation" (e.g., textual explanation of material appearing on a "lecture presentation" frame) or help/see-also information. Via VMDS, students are able to access visual still frames and videotaped segments presented in lecture outside of class, from a variety of locations.

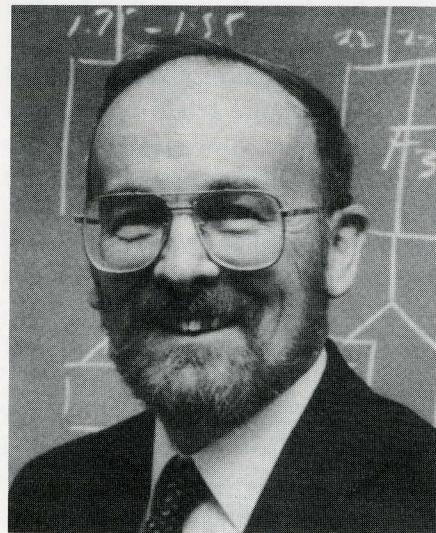
The Videojockey Multimedia Delivery System, described above, has grown out of an earlier instructional innovation developed by Dr. Meyer: the "Lecture-Workbook," a skeleton set of notes with *carefully chosen* sections left to be completed in class. The structure and organization of the Lecture-Workbook is based on studies that show notetaking transcends mere archival utility; significant learning can occur during lecture due to the *active encoding* of information that notetaking facilitates. The Lecture-Workbook helps focus classtime attention on material that has the greatest potential for elucidating important concepts while minimizing the amount of classtime spent on peripheral details. Not only is classtime efficiency maximized, but also there is greater opportunity for interaction and discussion, thanks to a more relaxed atmosphere.

Finally, use of a Lecture-Workbook facilitates a structured lecture-by-lecture course outline, providing high consistency in the course content from semester-to-semester regardless of who is teaching the course. Dr. Meyer has developed complete Lecture-Workbooks for EE 266 *Digital Logic Design* (used from 1980–1985) and EE 362 *Microprocessor Systems and Interfacing* (used from 1982–present). He is currently developing similar materials for EE 477 *Digital System Senior Project* and EE 566 *CISC Microprocessor System Design*. He is also co-authoring, with Harold S. Stone, a textbook covering the EE 362 and EE 477

course material: *Microprocessor Systems and Interfacing* (Addison-Wesley), to appear in 1994.

Another noteworthy innovation pioneered by Dr. Meyer is a computerized grading/course management system that provides students, via E-Mail, with their exact class standing along with a projected grade at various times throughout the semester. Development of this system has been motivated by the desire to let students know *exactly* where they stand following each exam, while at the same time respecting their privacy (by not posting scores and/or projected grades publicly). The grading algorithm developed and refined over the past ten years has proven to be very fair, reliable, and stable. An accompanying set of utility programs provide the instructor with a wide range of statistical information as well as course support services (e.g., grade entry sheets, office hour log sheets, etc.). Dr. Meyer has used this system in all the courses he teaches and has made it available to other professors as well.

Dr. Meyer lives in West Lafayette, Indiana with his wife, Marsha, and two sons, Corben and Connor.



**Bruce P. Johnson**  
**Vice-President**

Born in Lewiston, Maine on August 8, 1938, Bruce attended

Bates College where he majored in Physics, developed an interest in electronics including building stereo systems out of World War II surplus electronics, and played varsity tennis for two years. Graduation from Bates in 1960 took him to the University of New Hampshire, Durham where he was a teaching and research assistant and held a National Science Foundation Fellowship. His specialization at UNH was in the area of solid state transport properties of semiconductor materials at elevated temperatures. The M.S. degree in Physics was completed in 1963.

In 1962, he joined the faculty of the Department of Physics at Hobart and William Smith Colleges in Geneva, N.Y. teaching all levels of undergraduate Physics and supervising undergraduate research on the dielectric and optical properties of materials. In 1964, Bruce enrolled for the Ph.D. at the University of Missouri, Columbia. At Missouri, in addition to being a teaching assistant, he received a Stewart and a National Science Foundation Fellowship. The dissertation research area was on color centers in single crystal strontium oxide, a material used in oxide coated cathodes for efficient electron emission.

The completion of the Ph.D. in Physics in January of 1967 took him to the Advanced Engineering Laboratory of General Electric's Medical System Division in Milwaukee, Wisconsin. The work at GE, Milwaukee was on non-conventional x-ray imaging systems including semiconductor-electroluminescent sandwiches and x-ray luminescent fiber optic imaging systems. In December of 1969, he transferred to the Lamp Division of General Electric at Nela Park in Cleveland, joining a new GE effort to develop solid state lamps. Responsibilities at GE included managing a group of scientists and engineers doing research and development on light emitting



diodes and displays. When GE transferred this effort to Syracuse, N.Y., in 1974, Bruce decided to return to teaching and academic research. He joined the faculty of the Electrical Engineering Department at the University of Nevada-Reno as an Associate Professor with responsibilities for courses in integrated circuit design, device electronics, electromagnetic fields and computer engineering. In 1978, he was elected chairman of the Department and served through 1983 with promotion to full professor in 1981.

With the generous assistance of Eminent Member Marcus Dodson, the Theta Psi Chapter of Eta Kappa Nu was created at UNR in 1982. Bruce has been the Chapter Advisor since its founding. He served on the Board of Directors of Eta Kappa Nu from 1990 to 1992 as the Western Director.

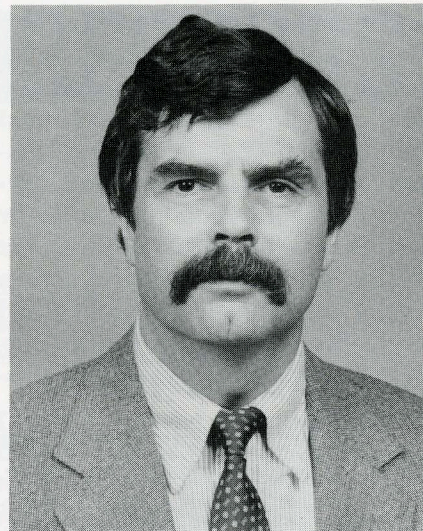
President Jimmy Carter appointed Bruce to the United States Metric Board from 1978-80 and from 1980-82 as he served two terms including chairman of the USMB research committee. Active in IEEE, he has served as student chapter advisor, chairman of the Northern Nevada Section, Region 6 Central Area Student Activities Coordinator, and from 1991-present as the Region 6 Student Activities Chairman. A term as President of the Northern Nevada Chapter of Sigma Xi, the Scientific Research Honor Society, occurred in 1984. For several years he has been active in the Nevada Innovation, Technology and Entrepreneur Council serving as member and chair of the Nevada Inventor of the Year Committee. Other professional associations have included Sigma Pi Sigma (Physics honor society), American Society for Engineering Education, American Physical Society, Electrochemistry Society, and the International Association of Science and Technology for Economic Development.

In 1991, he was elected to a sec-

ond term as chairman of the Electrical Engineering Department. Through the years at UNR, he has served on the Faculty Senate including the Faculty Senate Executive Committee, the Graduate Council, the Graduate Research Advisory Board, and many campus, college and department committees. He is currently co-chairman of the International Symposium on Recent Advances in Microwave Technology to be held in New Delhi, India in December, 1993.

Present research interests center on high frequency electronics including CAD modeling of electronic devices and circuits and intelligent vehicle highway systems. Bruce has over 40 publications and has been involved in a wide variety of funded research from agencies such as NSF, AFOSR, NASA, and several private companies. A recent project he is working on involves developing a radar module to laterally guide a vehicle along the automated highway of the future with no driver intervention. This project is funded by the California Department of Transportation. He recently completed another project funded by the Federal Strategic Highway Research Program which involved instrumenting a truck tire with a video camera that monitored the internal rib deformation as the tire encountered different surface characteristics. This approach represents a novel method for real time data collection of pavement condition at high driving speeds.

Bruce has been married to his wife Marcia since 1961. Marcia is a registered nurse and a care manager at the local Rehabilitation Hospital. They have four children, two boys and two girls, with Sam and Becky in College, Michael a Chef at a Reno casino, and Robyn finishing her Ph.D. in psychology at the University of Southern California.



**Russell J. Niederjohn**  
**Director**

Russell James Niederjohn was born in Schenectady, New York, on June 13, 1944. He received the B.S., M.S., and Ph.D. degrees in electrical engineering from the University of Massachusetts, Amherst, Massachusetts, in 1967, 1968, and 1971, respectively. While attending the University of Massachusetts he had summer positions at General Electric Company in Pittsfield, Massachusetts (Summer 1965), and Syracuse, New York (Summer 1966), and at IBM in Kingston, New York (Summer 1967). In addition, while in graduate school, he worked as a teaching assistant (one semester) and research assistant (three and one-half years). In 1971, he joined the faculty of the Department of Electrical Engineering, Marquette University as an assistant professor. He was appointed associate professor in 1975 and professor in 1980. For the past six years he has served as chairman of the Electrical and Computer Engineering Department.

Dr. Niederjohn's research interests include speech processing, practical signal processing, computer methods, and engineering education. He has taught courses and published over one hundred technical papers in these areas. His most recent work has involved the enhance-

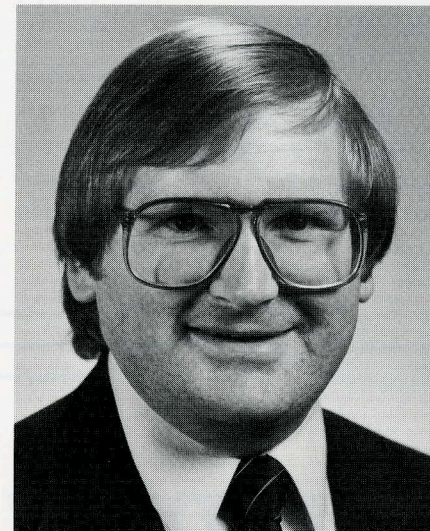
ment of speech intelligibility in high noise levels.

Dr. Niederjohn is the recipient of several awards including the Eta Kappa Nu C. Holmes MacDonald Outstanding Electrical Engineering Professor in the United States Award (1978), the Dow Outstanding Young Faculty in the ASEE North Midwest Section Award (1977), the IEEE Milwaukee Section Memorial Award for "Contributions to the Field of Speech Processing and Outstanding Achievements in Electrical Engineering Education," the Marquette University Faculty Award for Teaching Excellence (1988), the Marquette University Outstanding Engineering Teaching Award (1985), the Marquette Chapter of Eta Kappa Nu Teaching Excellence Award (1985), and the Marquette University Chapter of Sigma Xi 1993 Scientific Achievement Award for "Distinguished Scientific Research Achievement in Speech and Signal Processing" (1993). He is listed in several biographical volumes including Who's Who in America (since 1986).

He is an active member of several professional societies including advisor to the Marquette Eta Kappa Nu Chapter, Vice President for Publications of the IEEE Industrial Electronics Society, and Associate Editor of the IEEE Transactions on Industrial Electronics. He has served as Chairman of the IEEE Milwaukee Section (1985-86), a member of the IEEE Milwaukee Section Executive Committee (1974-79 and 1982-87), Chairman of the American Society for Engineering Education (ASEE) North Midwest Section (1977-78), a member of the ASEE North Midwest Section Executive Committee (1974-91), president of the Marquette University Chapter of Sigma Xi (1987-88), and a member of the IEEE Industrial Electronics Society Administrative Committee (1986-present). He is a fellow of the IEEE, a registered professional engineer in the State of Wisconsin, a member of Eta Kappa Nu (since

1964), Tau Beta Pi (since 1965), and Sigma Xi (since 1970).

Dr. Niederjohn lives in New Berlin, Wisconsin, with his wife Susan, and sons Matthew (19) and Jeremy (13). Susan Niederjohn teaches elementary school part-time along with her church, school, and other volunteer activities.



**Robert I. Egbert**  
**Director**

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 The 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.

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 half a million 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 thirteen years and 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 Secre-

tary/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 as 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 Pinney.

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.

# 1991-92 Chapter Awards

by Alan Lefkow

The Outstanding Chapter-Activities Award Program continues to do what it has been doing since 1932, recognizing excellence in college chapters by virtue of service to their students, department, school, and community. For the academic year 1991-92, seven college chapters received awards for having an outstanding program of activities. Beta Chapter of Purdue University copped the National Winner award, the eleventh in its string of wins in as many years. Epsilon Beta of Arizona State University and Gamma Chi of New Mexico State University received Honorable Mention. Four other chapters were cited for their meritorious programs and received Certificates of Merit as up and coming chapters. They were Iota Upsilon of University of Washington, Theta Chi of University of Colorado at Colorado Springs, Zeta Chi of University of Central Florida, and Gamma Mu of Texas A & M University.

The Outstanding Chapter Award program is unique among the award programs of Eta Kappa Nu. One winning award can touch the hearts of a whole chapter.

The award plaques themselves have been made as rich as possible. The National and Honorable Mention winners receive metal plaques engraved in color. The Certificate winners receive their award laminated in walnut.

For 60 years, winning the Outstanding Chapter Award has been a source of pride and distinction. The Chapter Award committee selects the winning chapters on the basis of the annual chapter reports. The reports are received in the fall after the end of the academic year, and the judging occurs in the winter. In the spring the committee announces the winners, and the plaques are presented then.

Any chapter that sends in an annual report is automatically entered into the competition. Winning chapters invariably send in reports of distinction that do justice to their programs of activities. Many of these reports have been published in the pages of BRIDGE as examples to others. A winning report requires hard work, but then so does an outstanding program. In this issue, the report of Gamma Mu is presented.

## ETA KAPPA NU GAMMA MU CHAPTER ANNUAL REPORT 1991-92

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September 1992

### A Letter from the President

I have been involved in no other organization that has given me the satisfaction that I have obtained from Eta Kappa Nu. I have watched myself grow from a shy student into an experienced leader confident in entering the job market. I learned to pull a group together, get that group excited, and help them do a good job on the projects we undertook.

Not only have I learned a lot, but the whole club has benefitted from the past year. The Video Information Center is running thanks to many hours of work by pledges and active members. We can now go into the Zachry Engineering Center and see the product of our efforts working for the whole university to appreciate. Other members will take their experience with corporate fund-raising gained through our Finance Committee into the job market. We have also provided many other services from tutoring freshman and sophomore students to helping at a local hospital.

These successes show that people can get more from Eta Kappa Nu than they usually do. Quite honestly, most candidates attend our orientation meeting thinking Eta Kappa Nu will simply provide another line on their resume. They do not see that our organization can offer them experience in areas rarely covered by the curriculum, such as speaking in front of audiences, making contacts and learning to work in a group. The officers of this chapter have created a club where our members can learn these skills and also have some fun.

We helped our members gain skills and experiences and they helped us build a powerful organization as shown in the report that follows. I know the new officers will continue making Eta Kappa Nu a successful organization and I hope they get as much out of it as I have.

*Warren Edwards*

Warren Edwards,  
President, 1991-1992.

### 1991-92 GAMMA MU CHAPTER OFFICERS

PRESIDENT.....	Warren Edwards
VICE-PRESIDENT.....	Vance Harral
TREASURER.....	Ken McDonough
RECORDING SECRETARY.....	Maritza Lecavalier
CORRESPONDING SECRETARY.....	James Berry
BRIDGE CORRESPONDENT/HISTORIAN.....	John Willis
PUBLICITY CHAIRMAN.....	Matt Usey
FACULTY ADVISOR.....	Mr. John Tyler
FACULTY ADVISOR.....	Dr. Karan Watson

### SOCIAL ACTIVITIES

#### Orientation Smoker

The orientation smoker was held on September 13, 1991 at the Arbor Square apartment complex. This gathering was held so that prospective candidates could become better acquainted with the current officers and ask any questions they might have about the organization. Warren spoke about how HKN candidates work in a committee atmosphere. Mr. John Tyler, one of the faculty advisors for the chapter, was present at the meeting. He spoke to the group about the importance of membership in Eta Kappa Nu. About thirty candidates attended the event.

#### Eta Kappa Nu Picnic

During both the Fall and Spring semesters the chapter held a picnic at Hensel Park. The picnic presented the candidates with a chance to get to know the officers and other actives. Conversation included such topics as upcoming events and pledge requirements. After a hearty lunch of hamburgers and hot dogs, candidates and actives played baseball and frisbee. The candidates did an excellent job preparing the picnic, and the event was a big success.



#### Hot Dog Day in the EE Lounge

This event was held early in the Spring semester. Its purpose was to recruit actives to head committees. We hoped to show that our chapter was fun as well as worthwhile. The event was very successful. The actives who were recruited worked very hard. Free hot dogs were offered to all and many questions were answered. A good time was had by all.

#### Eta Kappa Nu Happy Hour

This was an on going event during the Spring semester. It was organized by the social committee headed by Ken McDonough. The idea was to get candidates, actives and officers together in an atmosphere away from school. Once a week a three hour time slot was designated as happy hour. The meeting places varied, but all were within walking distance of campus. The North gate area of the Texas A & M campus has many different restaurants, the most famous of which is the Dixie Chicken. Several happy hours were held at "The Chicken". The event alternated between Thursday of one week and Wednesday of the next week. This allowed for scheduling conflicts that would prevent someone from attending. On average fifteen to twenty people would attend. This is a tradition that will be continued next year. It was a big success and made for a much closer group.



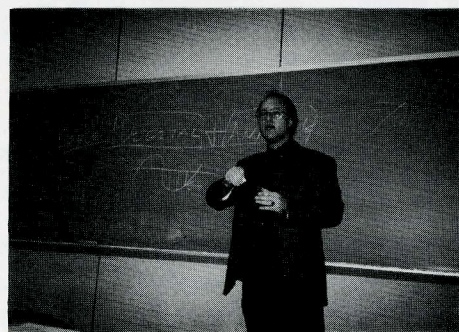
Happy Hour at the Dixie Chicken

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#### SPEAKER MEETINGS

The chapter had four speaker meetings during the year. Two during each semester. The meetings were meant to expose candidates and members to information not normally available in the classroom.

The first speaker in the Fall was Paul Norman. Paul is a graduate student in the Department of Speech and Communications here. He spoke to the chapter on how to deliver technical information to a non-technical audience. He stressed the importance of making similarities between the technical material and more commonly known ideas. This makes it easier for the audience to grasp the concepts of the more complicated material.



Paul Norman explains how to lecture to non-technical audiences about technical issues.

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#### 42/Pool Tournament

Late in the Spring semester a domino and pool tournament was organized. Teams were organized and the tournament began. Unfortunately it was begun too late and finals interrupted the completion of the tournament. We did manage to complete the first round. All involved expressed an interest in continuing the tournament in the Fall. We look forward to completing the tournament in September.

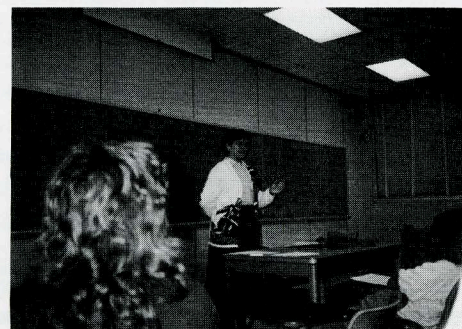
#### Induction Ceremonies/Banquets

The Fall induction ceremony and banquet were held on Saturday December 7. The induction was held in the Memorial Student Center on campus. We chose this location instead of a classroom in consideration of all the parents in attendance. Many parents drove several hours to be at the induction and it was only fitting we provided the nicest possible setting available. During the ceremony twenty six new members were inducted into the Gamma Mu Chapter of Eta Kappa Nu. The banquet was held at Tom's Barbecue and was attended by about fifty people. John Willis received the outstanding candidate award and had his Eta Kappa Nu certificate matted and framed in recognition of his service.

Twenty new candidates were inducted on Saturday April 25. The induction ceremony was held at Rudder Tower on campus. The banquet was once again held at Tom's Barbecue. Parents and candidates had a great time visiting. Many of the parents were old Aggies and had plenty of stories to tell about their days at A & M. Stephanie Strauss was elected most outstanding candidate and had her Eta Kappa Nu certificate matted and framed.

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The second speaker for the Fall was Dr. Karan Watson. Dr. Watson is a professor in the EE department and an associate dean in the College of Engineering. She is also a faculty advisor for the chapter. Dr. Watson spoke about the procedures of presenting technical papers for publication. She spoke about refereed and nonrefereed papers and the differences between the two. She also spoke about the significance and pressures of publication on university professors. The speech was very informative and gave an accurate description of the research publication process. Dr. Watson stayed after the meeting and answered several questions.



Dr. Karan Watson explains the process for paper publication

The first speaker for the Spring semester was Blake Harral. Mr. Harral spoke on the different paths available to Electrical Engineers in industry. His main focus was on the comparison of big company engineers vs. independent consultants. He pointed out the advantages and disadvantages of both positions. Mr. Harral has several years of experience in both areas and is currently an independent consultant. The meeting was very informative and gave members exposure to real world situations not encountered in a daily university setting.

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The final speaker was Robert Drennan from Austin. Mr. Drennan spoke about the interview process and networking. He provided a thorough lecture on basic networking in the job market and how to go about establishing contacts in industry. He also gave several very interesting pointers on interview techniques and pitfalls commonly encountered by college graduates on their first interview. Mr. Drennan left several copies of his lecture notes for candidates to study in preparation for their first interview.

#### UNIVERSITY RELATED ACTIVITIES

##### MSC Open House

The Memorial Student Center open house was held in early September. This event is designed to allow student organizations from the Texas A & M campus to hand out information about their various activities. The Gamma Mu Chapter of Eta Kappa Nu maintained a booth at the event and handed out brochures on the organization to interested electrical engineering students. The chapter felt that freshman and sophomores might strive to achieve higher scholastic goals if they knew the requirements for entry into Eta Kappa Nu. The event was a success and the officers talked to several prospective candidates.

##### JETS Day

A few Eta Kappa Nu pledges set up a booth in the lobby of the Zachry Engineering Center for this event. The purpose of this event is to expose high school students to the many different aspects of engineering. The HKN booth represented the Department of Electrical Engineering at A & M. Many parents and students attended the event. HKN members discussed the curriculum here and answered questions about electrical engineering.

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##### EE Lab Tours

During the Fall semester, two candidates elected to schedule lab tours as a minor project. Several EE labs were toured including the VLSI lab, laser lab, semiconductor lab, microwave lab and many more. This allowed many of the candidates to see what went on in the labs they may have previously only seen from the hall. The tours were headed by professors from the lab's area of research and included explanations of equipment and procedures used in the various fields of electrical engineering.

##### Tutoring

The tutoring committee was comprised of both actives and candidates. Tutoring sessions were by appointment and were conducted by a candidate or active who was knowledgeable in the area in question. This was found to be more effective than a manned booth. Some problems were encountered with scheduling, but many students were tutored during the two semesters. The committee also set the stage for tutoring of local high school and Jr. high students. Next year the committee will expand its operations to cover these areas as well.

##### Freshman Survival Guide

This is an attempt by Eta Kappa Nu to better acquaint incoming freshman with Texas A & M and college life in general. It is being written by members and candidates. It will include such topics as where to eat, where to get books, suggested courses and general information about the engineering program at A & M. The book will also offer suggestions to help avoid common freshman pitfalls such as poor time management and poor study habits. The guide will be completed by Spring of '93 and distributed at the freshman orientations in the Summer of '93.

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#### COMMUNITY SERVICE

##### Brazos Valley Church Pantry

Five Eta Kappa Nu candidates worked at the Brazos Valley Church Pantry this year. The food pantry serves the needs of the Brazos Valley and relies heavily on volunteers. Candidates performed various tasks such as bagging and sorting groceries for underprivileged families.

##### Twin City Missions

A few HKN candidates worked in the Twin City Missions store in College Station. The store is a second hand store that sells used goods. The goods are donated and the money made goes to help the needy in Bryan and College Station. The candidates helped clean the store and fold clothing. They had many good things to say about their experience at the store. Specifically, it made them realize how fortunate they are.

#### EDUCATIONAL DEVELOPMENT

##### Course of Study Seminar

During the Fall semester Gamma Mu sponsored a seminar outlining the courses of study available at Texas A & M. A & M's B. S. offers five different areas of specialization. To help students better understand what is available and required in each area, five professors were invited to speak. Dr. Cantrell spoke on computer engineering and digital design. He briefly described the undergraduate classes and mentioned some of the available graduate classes. Dr. Weichold spoke about electronics and the classes offered in that area. Dr. Russell spoke about power and about the specific requirements for some of the most popular classes in that area. Dr. Wright spoke about electromagnetic waves and antennas. The last speaker, Dr. Georgiades, spoke about controls and digital signal processing. The seminar lasted approximately ninety minutes and was well received.

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#### MAJOR PROJECTS

##### Video Information Center

The Video Information Center (VIC) was an idea conceived over three years ago. Eta Kappa Nu saw a need to provide engineering students a forum to get university and club activities and information dispersed to the student body. The video information center is a 4' X 4' X 8' kiosk located in the lobby of the Zachry Engineering Center. The kiosk contains three 19" monitors, a VCR and a computer. The computer runs an ongoing slide show generated by Harvard Graphics. The slide show is ran on two of the monitors. The VCR runs information and comedy videos on the third screen. Any nonprofit organization is allowed to place messages on the slide show presentation. Forms are kept in the HKN office and messages are placed on the system daily.

In the planning stages of the VIC, ideas of its design and purpose were considered and agreed upon. The first year was spent getting approval from Operations to place the kiosk in the lobby of Zachry and cost estimation of the project. During the following year plans were drawn up and fund raising began. Early this year the kiosk construction began and equipment prices were researched. By mid Fall enough money had been collected and saved to start purchasing the hardware required to operate the VIC. Most of the money was raised by the finance committee and set aside for this project. There were several delays in the kiosk construction and a few set backs in hardware interfacing, but the project continued.

This Spring the VIC came on line! The hard work and planning of six candidate groups, three years worth of officers and an untold number of actives became a reality. A plaque was mounted on the side of the VIC listing all the sponsors and its donor, Eta Kappa Nu. A dedication ceremony was held and a set of rules and guidelines were signed by the officers and advisors to insure its proper use.

The VIC was an \$8000 project. Its funding was raised entirely by HKN members and candidates through corporate and university sponsors. Future plans include the installation of cable to one of the monitors to run CNN or other informative or fun programming. The VIC is just one example of the Gamma Mu Chapter's commitment to this university and its students. We

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firmly believe that HKN can make a difference in the quality of life, not only for its members, but for all students at the university. The chapter is already in the planning stage for its next major project. The finance committee is once again prepared to meet the challenge of financing a project that will make a difference.



The Eta Kappa Nu Video Information Center

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FUND RAISING

Car Wash

Each semester the candidates held a car wash to raise money for chapter activities. The Fall car wash was held at Taco Cabana, a local restaurant. Virtually every candidate pitched in and the event was a huge success. The Fall car wash raised about \$105.

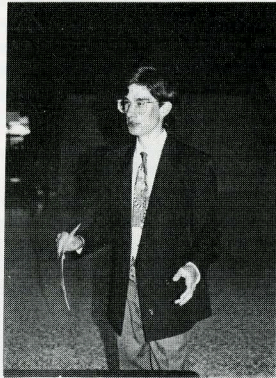
The Spring car wash was held at the Bombay Bicycle Club also a local restaurant. Once again virtually every candidate turned out to help raise money. After several hours of hosing down cars (and each other) the final total was over \$150.

The money raised at the car washes was used for chapter activities such as the picnic and other operational expenses. Funding for major projects came from corporate sources and were not used for daily expenses.



HKN candidates work hard at the car wash as Matt Usey and James Berry point out the spots they missed. The A & M campus can be seen in the background.

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Chapter President Warren Edwards going over the VIC guidelines.



Dr. Karan Watson, faculty advisor signs guidelines making them part of Gamma Mu's bylaws.



Officers and actives at the VIC dedication ceremony

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Finance Committee

The finance committee was headed by Jeff Harvey. Its main responsibility was raising money for the VIC. About fifteen candidates comprised the finance committee. The committee contacted corporations and informed them about the activities and goals of HKN at A & M. The candidates then established a working relationship with the companies and kept them informed of our activities. The committee raised over \$4000 in donations this year alone. In addition to corporate sponsors, the committee also received donations from four departments located in the Zachry Engineering Center. The Electrical, Nuclear, and Industrial Engineering Departments each gave donations of \$500. The Chemical Engineering Department donated \$1000. The finance committee gave many candidates a chance to make lasting contacts in the corporate world. Several candidates have established relationships outside the finance committee with their corporate liaisons which could eventually lead to job offers.

The finance committee believed that a personal approach to funds solicitation was more appropriate than a form letter type approach. The committee received a lot of positive feed back from industry stating they were glad they were being kept informed of our activities. The finance committee has a good basis for continued success in the coming semesters.

GENERAL ACTIVITIES

HKN T-Shirts

Each year the Gamma Mu Chapter designs new T-shirts for the candidates. Several candidates work together on a design. The candidates then vote on the design and a local merchant prints the shirts. The Fall semester T-shirts were grey with the HKN symbol on front and a quote from Thomas Edison on the back. The Spring shirts were solid red with the letters HKN embroidered on the front.

Actives List

In order to have an accurate list of HKN members still at Texas A & M, an actives list is kept. Several candidates call the actives to determine the correct information and status to place on the list. The list is used to contact actives about upcoming event and functions that concern them.

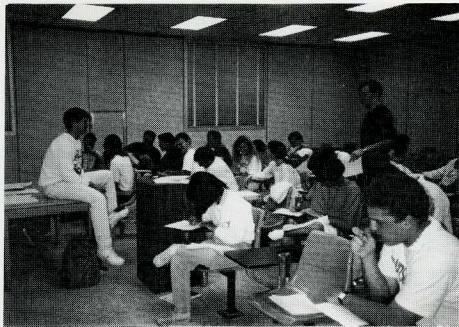
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Presidents Book

In an effort to make a smoother transition of leadership, Warren prepared a President's book for next years officers. The book contains all the activities of the chapter. Timetables and documents were also included. The significance of the book is that each new group of officers does not have to make the same mistakes twice and the chapter can make constant improvements on previous activities.

Candidate Meetings

Candidate meeting were help approximately once a month. The purpose of the meetings was to keep candidates informed about what was going on throughout the entire organization. These meeting were in addition to speaker and committee meetings



Vice President Vance Harral listens as a candidate ask a question

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Outstanding Active

Jeff Harvey was elected outstanding active for 1991-92. Jeff was very active in all aspects of the club. He was especially effective on the finance committee and was able to raise a substantial amount of money for the VIC. Jeff was elected treasure for 1992-93.

Outstanding Electrical Engineering Student

Shayne Short was a runner up in the national competition for most outstanding EE student. Shayne is a member of the Corp of Cadets and president of the Corp's honor society. He maintains over a 3.9 GPR and is a big brother at a local boys ranch. Shayne was also very active in HKN this year.

Outstanding EE Professor

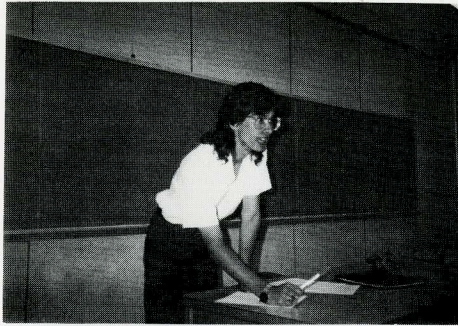
Dr. Mark H. Weichold was elected by the students of the Electrical Engineering Department as most outstanding professor. HKN held the election in the lobby of the Zachry Engineering Center over a period of several days. The voting was very close and there was a good response from the students.

FUTURE PLANS

The Gamma Mu chapter has many exciting plans for the coming semesters. We are currently in the process of securing cable for the VIC. This will help provide students with up to date news and information. The freshman survival guide will go into publication sometime this year. We are also beginning an "Adopt a Spot" program and are searching for a location. Our community service activities have already increased and the stage is set for increased involvement in community activities. The tutoring committee has contacted the local high schools and established a mentors program. This program will give high school students a chance to discuss college life and school projects with HKN members.

For our next major project we are currently investigating the possibility of setting up an electrical engineering lab in a Texas high school. This lab will help stimulate interest in electrical engineering and foster young engineers to meet the challenges of the future.

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Chapter President Warren Edwards informs candidates about eligibility requirements

HONORS AND RECOGNITION

Fall 1991 Outstanding Candidate

John Willis was elected outstanding candidate for the Fall of 1991. He was cited for his work on the course of study seminar and various other activities. John was elected President of the Gamma Mu Chapter for 1992-93.

Spring 1992 Outstanding Candidate

Stephanie Strauss was elected the outstanding candidate for the Spring of 1992. She was cited for her work on the freshman survival guide and her overall enthusiasm for the organization. Stephanie was elected recording secretary for the Gamma Mu Chapter for 1992-93.

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1992-1993 GAMMA MU CHAPTER OFFICERS

PRESIDENT.....	John Willis
VICE-PRESIDENT.....	Darren Faulkner
TREASURER.....	Jeff Harvey
RECORDING SECRETARY.....	Stephanie Strauss
CORRESPONDING SECRETARY.....	Jason Arbaugh
BRIDGE CORRESPONDENT/HISTORIAN.....	Yale Vinson
PUBLICITY CHAIRMAN .....	Ben Stockton
VIDEO INFORMATION CENTER CHAIRMAN.....	William Ezell
FACULTY ADVISOR.....	Mr. John Tyler
FACULTY ADVISOR.....	Dr. Karan Watson

FALL 1991 CANDIDATES

Richard Bourgeois  
Andrew Crofts  
Cody Croxton  
Robert Flynt Jr.  
Carolyn Glass  
Mathew Grein  
Jeffrey Harvey  
John Hill  
Teresa Hinojosa  
Tammy Huffman  
Bradley Kinard  
Kevin Lew  
Myron Moodie

Spring 1992 CANDIDATES

Richard Abdelnour  
Jason Arbaugh  
Irving Avila  
Trey Bachmayer  
Jason Brewer  
Lloyd Chaka  
Jason Deats  
Richard Ezell  
Nick Krippner  
Stephanie Strauss

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