Iota Rho Chapter Installed
University of New Orleans

The education of engineers who have a strong background in the humanities as well as in the social, pure, and applied sciences has been the goal of the Electrical Engineering Department of the University of New Orleans since its inception. It is in this spirit that the members of the newly formed Iota Rho Chapter of Eta Kappa Nu take great pride in announcing the installation of their chapter on Saturday, April 22, 1989.

This occasion was marked by the initiation of seven faculty members, two graduate students, and twenty undergraduates. Former Eta Kappa Nu President, Dr. Paul Jacob of Mississippi State University, gave an inspiring speech on the history and philosophy of Eta Kappa Nu. After the ceremony and photographs, initiates and their guests celebrated at a banquet held on the UNO campus. Thanks to Dr. Francis Grosz (Alpha Chapter) for his guidance as Faculty Advisor and special thanks to Dr. Jacob.

The members of Iota Rho Chapter look to the future with confidence and will work hard to uphold the high standards of Eta Kappa Nu.

Eta Kappa Nu Charter Members Spring 1989 are: Thanh Huong T. Cao, Damon Michael Temple, Lee Yu Leon (Treas.), Michael T. James, Mohamad K. Nehdi (R. Sec.), DeLease Smith, Mike Murphy (Corres. Sec.), Harry J. Thompson, Khoi Hong (V. Pres.), Charles Dominique, Terence Michael Clifton, Ron Kennedy, Timothy J. Kern, Arthur Hanzo, Christian Gardner, Robert Drackett (Bridge Corp.), Ricky Samborn (Pres.), Thao T. Le, Kent Grahame Merritt, Joseph Davenport. Graduate Student Members: Kenneth J. Brousard, Charles Joseph Ledet. Faculty Members: Dr. Rasheed M.A. Azzam, Dr. Russel E. Trahan Jr., Dr. Terry Edmund Riemer, Dr. Richard R. Bishop, Gregory McGar, Henri A. Alcator, Christopher D. Jurado.
Chapter Iota Upsilon Installed
University of Washington-Seattle

Charter Presentation
Dr. Endrik Noges presents charter to Dr. Jim Ritecy

The University of Washington Iota Upsilon Chapter of Eta Kappa Nu was installed on May 25, 1989. The formal ceremonies were held at the Student Union Building on the campus. The reception was held immediately following.

The chapter charter was presented to Dr. Jim Ritecy by EE Chairman, Dr. Endrik Noges. The initiation was performed by alumni members Drs. Endrik Noges, Jim Ritecy, Mark Damborg, Dean Lytle and graduate students Kristi Rodenhiser, and Chao-Li Tzeng.

Immediately following the ceremonies, the new officers elections were confirmed. The new Officers are:

President: Ashok Kumar
Vice-President: Monaica Caselli
Treasurer: James Pak
Recording Secretary: Darwei Kung
Bridge Correspondent: Matthew Gordon
Faculty Advisor: Dr. Jim Ritecy

Two new officer positions were created:

Project Director: Lawana Quayle
Faculty Liaison: Michael Uhl

The Iota Upsilon Chapter includes 19 faculty members, 15 previous members, and 26 new initiates.

The new Initiates are: Joan Anastasio, Monica Caselli, Albert Cheng, Ong Chi Kang, Vincent Chung, Thai Dang, Mai Dao, James Eng, Hollis George, Matthew Gordon, Darrin Guimond, Xiao Huang, Kok-Ming Koh, Ashok Kumar, Darwei Kung, Michael Locke, Hoang Ong, James Pak, Paul Pong, William Pong, Lawana Quayle, Karen Tang, Michael Uhl, Larry Wiedenhof, Brian Wilson, Hsi-Jung Wu.
THE
C. HOLMES MacDONALD
OUTSTANDING TEACHING
AWARD
by C. Richard Johnson, Past Winner

Professor Jack Mitchell of Penn State University drove to Ithaca that day to present the award. After being introduced to the audience, Jack made some general comments concerning his pleasure in being invited to Ithaca. He then described some aspects of Eta Kappa Nu that the students might not be aware of, and specifically mentioned the C. Holmes MacDonald Award which is made annually to an outstanding young electrical engineering professor in the U.S.

At this point the students were probably expecting to hear a 'motherhood' speech on the virtues of staying active in HKN, but when Jack said "I have come here to present the 1988 C. Holmes MacDonald Award to a member of the Cornell faculty tonight," one could feel the anticipation in the room rise. Having artfully set the stage, Jack announced Professor Pollock's name, upon which there was an enthusiastic outbreak of standing applause and cheering.

Jack first presented the pewter plate that was inscribed with Pollock's name and the name and date of the award. Jack commented about the conversations he had shared with some students prior to the dinner. He said that the students had mentioned many times a course called "Superlab", which they all had taken from Professor Pollock over the past two years. "From what I have been told," Jack said, "you clearly have a Superprof for Superlab."

Again the students enthusiastically endorsed the speaker. Finally, when Jack read the certificate that accompanies the award, and with special emphasis read that the award is given annually to just one outstanding young electrical engineering professor "in the United States of America", the students and faculty again stood in applause, realizing that this award was both an honor for Pollock and for Cornell.

Clifford R. Pollock
Cornell University

The C. Holmes MacDonald Award was presented to Dr. Clifford R. Pollock at the annual student-faculty banquet. This banquet is sponsored by the local chapters of the IEEE student branch and HKN. The audience included about 150 junior and senior electrical engineers, as well as approximately 20 faculty and their spouses.

Dr. Clifford Pollock in the special laboratory which he developed in the Department of Electrical Engineering at Cornell University.
Pollock was visibly moved by the event, and was at a loss for words but finally spoke briefly. He said that he felt very honored to receive the award, and thanked all of the students for their enthusiastic work in his course. Were it not for the enthusiasm and hard work of the students, said Pollock, Superlab, or any other course for that matter, would never be a success.

Following the awards, there was a number of skits put on by the students, parodying various aspects of their professors and courses including Superlab. It was apparent that the student organizations in the Cornell electrical engineering school are healthy and active, and full of bright, enthusiastic young people.

In the area of Research, Professor Pollock works with tunable infrared lasers. While at the National Bureau of Standards, he developed an ultrastable narrowband color center laser for frequency metrology in the 2.3 μm region. His measurements led to a new international standard for the meter. At Cornell, his research has involved the development of new infrared lasers. His research led to the discovery and development of a new class of tunable lasers based on the F₁⁺⁻³⁰⁰° color center. This new type of laser is being patented, and is now being offered commercially. Present work is directed at extending the tuning range of infrared lasers beyond 3.0 μm, and in generating ultrashort optical pulses using nonlinear effects in optical fibers. Recently, his group has developed a new method for generating stable optical pulses with 80 femtosecond (80 x 10⁻¹⁵ sec) temporal duration. These pulses will be used for studies in ultrafast relaxation processes, such as energy transfer between molecules, and electron scattering in semiconductors.

Dr. Pollock's research career has been especially productive. While serving as a Postdoctoral Fellow at the National Bureau of Standards he contributed to fundamental work on the use of lasers in metrology. This work resulted in an order of magnitude improvement in the standard of length. Since his arrival at Cornell University, he has built up a $500,000 per year research program with 7 MS/PhD students. His recent research has included the development of the first NaCl color center laser. This is a very important discovery since the laser operation peaks at the center of the pass band of optical fibers.

He was recently promoted to Associate Professor—a richly deserved recognition of his efforts.

Dr. Pollock has made several contributions to education in Electrical Engineering at Cornell University starting with his development of two senior elective courses, EE 430—Lasers and Optical Electronics, and EE 530—Fiber and Integrated Optics. Both courses have enrollments in excess of 100 students and have laboratory sections. The latter course is new and the former has been completely revised and enrollments now have quadrupled largely as a result of his efforts, his personality, his interest in the students, and his desire to communicate to them his expertise. The two courses provide a combination of engineering science, application, and design which have attracted students from all over the Campus and have contributed substantially to his reputation as an outstanding teacher and to the reputation of the School as a whole.

His major contribution to Electrical Engineering education has been the development of a new junior level required laboratory course emphasizing design and writing in Engineering. The course, EE 315, has an enrollment of about 180 students and is run in 7 sections so the organization of the course and maintaining student enthusiasm is at best difficult. He has completely revised our introductory circuits course, integrating the computer into the experimentation as a device for data acquisition, manipulation, and experiment control. A new requirement of report writing has been introduced, with a critical review of the writing style (by faculty who have to take a special writing course before assisting in the instruction) an essential feature of the course. Finally, the experiments lead to a mini-design project consisting of the construction of a voltage regulated supply (which has to be soldered on a PCB board). Only the broad specifications are provided and the design is left to the student whose final grade depends on delivery of a working unit.

The new features of this course point out the challenge and changes confronting the student. Their response has been enthusiastic support of the course. His work was recognized by the student group in their selection of Clif as the Outstanding Teacher in the Engineering College—an award administered by Tau Beta Pi and funded by the Cornell Society of Engineers. There are 220 faculty members in the College so the recipient has tough competition.

In all his work Clif is modest, unassuming and is well liked and respected by his students and his peer group. As may be seen from his resume, he has served as the Chairman, Vice-Chairman and Secretary of the local IEEE Section. He has also been invited to serve in the review group for the New York State Center of Excellence in Telecommunications at the Polytechnic University of New York. Within the School he has served on the departmental Policy, Curriculum and Standards, and Safety Committees.
Glynis Hinschberger
Elected Society President

Glynis Hinschberger, P.E., assumed the office of President of the Society of Women Engineers (SWE) on July 2 during the 1989 SWE National Convention/Student Conference in Oakland, California.

Hinschberger is Manager of Transmission Planning for Northern States Power in Minneapolis. She has been with NSP since 1987. Her staff is responsible for transmission development in the utility’s service area, which includes portions of Minnesota, the Dakotas, Wisconsin, and Michigan. In addition, she chairs the Reserve Requirements Task Force for the Mid-Continent Area Power Pool, comprised of 27 electrical utilities in the Upper Midwest. This task force is charged with determining the long-range electrical generating capacity needs that each utility must meet to ensure that customers will have reliable energy supplies.

Hinschberger received her BS and MS degrees in electrical engineering in 1976 and 1977 respectively, from Iowa State University. Her community activities have included Junior Achievement’s Project Business and the University of Minnesota’s “Technically Speaking” program for high school girls considering engineering careers. She is actively involved in “Project Link” in Minnesota which seeks to change the perceptions of fourth, fifth and sixth grade students and their teachers about the appropriateness of scientific and mathematical careers for women.

Glynis was selected as one of SWE’s Distinguished New Engineers in 1987. A member of IEEE, she was chosen IEEE Twin Cities Section’s Young Engineer of the Year in 1988. She is also a member of the American Association for the Advancement of Science, and a life member of Eta Kappa Nu.

The Society of Women Engineers is a non-profit educational service organization of graduate engineers and women with equivalent engineering experience, dedicated to the advancement of women in the engineering profession.

THE ALTON B. ZERBY OUTSTANDING ELECTRICAL ENGINEERING STUDENT AWARD
1988

Text by Marcus Dodson

THE ETA KAPPA NU ASSOCIATION
1988-89

INTERNATIONAL EXECUTIVE COUNCIL

President
Virgil G. Ellerbruch

Vice-President
Robert J. Kennerknecht

Executive Secretary
J. Robert Bentes

Junior Past President
Harold K. Knudsen

INTERNATIONAL BOARD OF DIRECTORS

Irving Engelson
John Mitchell

Stuart McCullough
Donald S. Stoica

OUTSTANDING STUDENT AWARD COMMITTEE

Marcus D. Dodson, Chairman
Stuart McCullough
Donald S. Stoica
William E. Murray

JURY OF AWARD

Past President, IEEE
Past President, IEEE

Chairman, Los Angeles Council, IEEE
Director, National Science Foundation

LOS ANGELES ALUMNI CHAPTER

President
Donald S. Stoica

Vice-President/Secretary
Stuart McCullough

Treasurer
Rupert Bayley

Junior Past President
Arthur Sutton

Student Award Winner

EMY TAN
Winner

EMY TAN graduated summa cum laude with a GPA of 5.0/5.0, ranking first in her class of 355 EE seniors, was nominated by Alpha Chapter at the University of Illinois. She is a member of IEEE and the Society of Women Engineers and has been honored with membership in Tau Beta Pi, Phi Kappa Phi, Golden Key and Eta Kappa Nu.

She, with another student, created the “AT&T Vision System” that gives an industrial robot a window of vision within which it can automatically pick up objects, and they wrote the user’s manual for the system. This was an honor project. While at AT&T Bell Labs summer work, she designed a tone detector using switched capacitors technique. In school she was a highly respected teaching assistant.

Miss Tan assisted engineering students in selecting suitable fields of interest and pre-engineering students by speaking in high schools. She was a leader in campus technical organizations as well as social and intramural athletic events. She has been a champion of the handicapped both on campus and in the community.

She has received many awards, including one that every reader of the “Bridge” will recognize, the “Marcia Peterman Award.” Others include the Fathers’ Association Award, the Mothers’ Association Award, the Little Abbott Rose Award, etc. She was chosen to participate in the 1986 Summer Overseas Chinese Youth Training and Study Tour to the Republic of China. There were many other notable awards.

Miss Tan writes short stories and poetry, and is a philatelist. On the slightly more active side, she plays the piano. On the active side, her participation ranges from ice skating to tennis, all in season. Following graduation in May, she toured Europe.
HONORABLE MENTION

MEMBER
Beta Psi Chapter, Nebraska-Lincoln
Blaine Douglas Johns graduated summa cum laude with a GPA of 3.99, ranking third in his class of 199 EE seniors, was nominated by Beta Psi Chapter at the University of Nebraska. He is a member of IEEE and has been honored with membership in Alpha Lambda Delta and Phi Eta Sigma as well as Eta Kappa Nu. He and another student won first place during Engineering Week in 1987 with their design and implementation of parallel processing hardware and software, then in 1988, with another student, won with their design and construction of an 8-bit discrete component microprocessor. Mr. Johns tutored fellow students under the auspices of the KKN tutoring program and participated in projects within the College of Engineering and his church. He has been on the Dean's list for 7 semesters and is a Mortar Board Notable. He received the Regents Scholarship, the Walter Scott, Jr. Scholarship and the National Merit Scholarship. He enjoys music and the active sports, such as running, skiing and basketball.

MEMBER
Beta Sigma Chapter, University of Detroit
Michael Allen Ignatowski graduated summa cum laude with a GPA of 3.94, ranking first in his class of 66 EE seniors, was nominated by the Beta Sigma Chapter at the University of Detroit. He is a member of IEEE and was honored with membership in Tau Beta Pi, Alpha Sigma Nu and Eta Kappa Nu. While working at the Environmental Research Institute of Michigan he designed, simulated, debugged and helped design high speed digital image processing circuits and designed board layout for 100 IC designs. Mr. Ignatowski found time to help his classmates with course work and to tutor local and elementary school children. He served as a Little League umpire. He has been on the Dean's Honor List each semester and been given the Engineering and Science Key Award each year. He received the "Insignis Scholarship" and the Michigan Competitive Scholarship. He enjoys outdoor sports of all kinds, music and writing poetry.

MEMBER
Gamma Delta Chapter, Worcester Polytech.
Eric Kurt Pauer graduated summa cum laude with a GPA of 4.0, ranking first in his class of 172 EE seniors, was nominated by Gamma Delta at Worcester Polytechnic Institute. He was a member of the Air Force ROTC and is a member of IEEE and was honored with membership in Tau Beta Pi and Eta Kappa Nu. He designed a Fourier Series graphics package and a modem for wireless Local Area Communications Network. Upon graduation he became a Second Lieutenant in the U.S. Air Force. He is skilled in several computer languages. Mr. Pauer, while president of his chapter of KKN, organized a tutoring service for EE students. Also, under the direction of a Professor, he held a seminar style class on calculus at a local High School. He received the Society of the War of 1812 Award from Air Force ROTC and the American Legion Scholastic Award Gold Medal. He enjoys astronomy and stamp collecting as well as the outdoor sports of fishing, hiking and skiing.

FINALISTS

Matthew Thomas Busche .......................................................... University of Missouri, Rolla
Donna Sue McMahon .............................................................. Louisiana State University
Michael Laurel Peterson .......................................................... Iowa State University
Leon Roy Reese ................................................................. University of Hawaii
Barbara Helen Stark ............................................................... University of Texas, Austin
Lars M. Wells ................................................................. University of New Mexico
New Brunswick...

OYEE
AWARD DINNER

by Irving Engelson
Chairman Award Organization Committee

with photos
by Howard H. Sheppard

1988 marked the 53rd anniversary of the Outstanding Young Electrical Engineer of the Year Award. The awards banquet was held at the Hyatt Regency-New Brunswick in New Brunswick, New Jersey. Mr. James A. D'Arcy, a member of the Award Organization Committee and one of its past Chairmen, was Master of Ceremonies. The keynote address was presented by Dr. Russell C. Drew, 1988 IEEE President.

Dr. Drew addressed some of the problems the United States is facing in the area of industrial competitiveness. He indicated that scientific literacy among the youth must increase and industry must focus more of its efforts on improving manufacturing technology. Dr. Drew specified that there is an increasing awareness that these areas must be addressed if the U.S. is to be successful in a global competitive market.

Those young engineers honored this year exhibited our optimism with their enthusiasm, dedication, engineering excellence, and breadth of interest. The Outstanding Young Electrical Engineer Award for 1988 went to Ronald A. Spanke, Member of the Technical Staff at AT&T Bell Laboratories in Naperville, Illinois. Mr. Spanke was recognized for his "contributions to optical switching architecture, breadth of community activity and concern for youth." Honorable Mentions were awarded to Dr. Tom T. Hartley for his "contributions to adaptive control theory and system simulation and involvement in church and youth activities" and Dr. Michael A. Isard for his "contributions to advanced television systems and his community." Four engineers were recognized as Finalists: Christopher J. D'Ascanzo, Philadelphia, Pennsylvania; Michael P. Gagliardi, Moorestown, New Jersey; Ruthin N. Futatunda, Research Triangle Park, North Carolina; and Stanley M. Yuen, Moorestown, New Jersey.

The awards were presented by Dr. Virgil G. Ellerbruch, 1988 President of Eta Kappa Nu. Mr. Howard H. Sheppard, a Past President of Eta Kappa Nu, acted as photographer for the event. Mr. Sheppard has demonstrated his excellent photographic talents during many banquets and we can always rely on his willingness to contribute his photographic talents to these events and the excellence of his products. The banquet was expertly planned by the Recognition Dinner Committee under the Chairmanship of Michael R. Hajny.

Other members of the audience were composed of the Eta Kappa Nu Board of Directors, leaders from industry and academia, and members and friends of Eta Kappa Nu.

Photos: At top, Bell Laboratories’ Vice-President, Karl Marterstock, introduces his nominee and OYEE Winner, Ronald A. Spanke. At bottom, EKN President, Dr. Virgil Ellerbruch, describes the commemorative silver bowl and reads inscription as he presents it to Mr. Spanke.
Photos: At top, James D'Arcy, Past Chairman, OYEE Committee, and Master of Ceremonies, presents letter of congratulations from President George Bush to Mr. Spanke. At bottom, Mr. & Mrs. Spanke hold the OYEE Winner's Certificate of Recognition and the traditional engraved silver bowl with its commemorative inscription.

Photos: At top, HKN President Dr. Virgil Ellerbuch presents Certificate of Recognition to Honorable Mention Winner, Dr. Michael A. Isnardi, and at bottom to Dr. Tom T. Hartley, Honorable Mention Winner.
In Memoriam

Norman Richard "Kit" Carson
February 15, 1916-May 6, 1989

Mr. Carson was a member of the Institute of Electrical and Electronic Engineers, American Society of Civil Engineers and the Society of American Military Engineers. He was a member and past director of Eta Kappa Nu and past President of the Consulting Engineers Council of Washington, the Puget Sound Illini Club and Phi Mu Delta, his college social fraternity. He is listed in "Who's Who in Engineering" and "Who's Who in the World."

He endowed two scholarships, the Eta Kappa Nu Outstanding Junior Award and the Ellery B. Paine Scholarship.

He was honored as a Distinguished Alumnus in Electrical Engineering and member of the President's Council of the University of Illinois and as Engineer of the Year by the Consulting Engineers of Washington. In his youth, he reached the rank of Eagle Scout in the Boy Scouts of America. He had been president and director of several corporations.

Mr. Carson was on the board of The Hope Heart Institute. He was a member of the Rainier Club and the Washington Athletic Club.

Mr. Carson's parents were C. Kenneth Carson and Fern Hitchcock Carson, both deceased, of Rockford, Illinois. Survivors are Marjorie LeValle Carson, his wife of 50 years, his daughter Barbara (Mrs. Dale Hamer) of Seattle, his sister Jean (Mrs. W.H. Esterdale) of Rockford, Illinois and grandsons Kenneth Hamer and Norman Hamer of Seattle.

Family services were held at the Providence Hospital Chapel with interment at Aesculapius Mausoleum in Seattle. Memorials may be made to The Hope Heart Institute.

Norman R. Carson, died at home after a long illness. He patterned his life on John 3:16, the Golden Rule and the Boy Scout Laws.

For God so loved the world, that he gave his only begotten Son, that whoever believeth in him should not perish, but have everlasting life.
John 3:16

Therefore all things whatsoever ye would that men should do to you, do ye even so to them: for this is the law and the prophets.
Matthew 7:12

He was born in Rockford, Illinois and came to Seattle in 1935. He was the former Partnership Chairman and Executive Partner of R.W. Beck and Associates, an international engineering firm with its general offices in Seattle.

Mr. Carson was a 1937 graduate of the University of Illinois in Electrical Engineering and had been first employed at Chicago by Commonwealth Edison Co. He had served as a Major in the United States Army in India and China during World War II and was decorated with the U.S. Bronze Star Medal and the Chinese Order of the Yun Hui.
In Memoriam
Laurence F. Cleveland

Laurence F. Cleveland, of Newton, Massachusetts, professor emeritus of electrical engineering at Northeastern University, passed away on July 16, 1989, in Newton-Wellesley Hospital. He was 84.

Dr. Cleveland was a faculty member at Northeastern for 44 years, retiring in 1973. He served as acting chairman of the Electrical Engineering Department and was director of the Power Systems Engineering Program.

Professor Cleveland was faculty advisor to the Choral Society and Fraternities Tau Beta Pi, Sigma Phi Alpha, and the National Electrical Engineering Honor Society, Eta Kappa Nu.

Dr. Cleveland was the first Faculty Advisor to the Gamma Beta Chapter of Eta Kappa Nu which was established in 1990. He served in that post for many years and guided its founding and early activities.

He was very helpful during the formative stages of the approach to the National Recognition of the chapter and then to the national office of HKN requesting the establishment of the honor society at Northeastern University. It was natural that he be appointed the first Faculty Advisor upon approval to establish the chapter.

Professor Cleveland was eminently agreeable and held his advisoryship as attested by the naming of the Department’s Power Laboratory building in his honor in observance of the establishment of the annual Laurence F. Cleveland Award.

The Boston Chapter Power Engineering Society honored him as the first recipient of the Laurence F. Cleveland Award for his contributions toward the local electrical engineering power for contributions to the industry.

Mr. Cleveland was an organist in St. Mark’s Methodist Church in Brookline for 21 years and played at the weekly chapel service at Northeastern.

Born in Worcester, he received a bachelor’s degree in electrical engineering from Worcester Polytechnic Institute in 1929 and a master’s degree in electrical engineering from M.I.T. in 1935. In 1974 he received an honorary Doctor of Engineering degree from Northeastern.

He was a member of the American Society for Engineering Education, the Power Engineering Society, the Institute of Electrical and Electronic Engineers, and the New England Geological Society.

Survivors include his wife, Dorothy (Spooner) Cleveland, a daughter, Carol LaCombe of Norwood; a son, George Spooner of Milford; and two grandchildren.

Ferrari Named VP/Asst. GM of MITRE Air Force Systems Group

Eugene J. Ferrari of West Newton has been promoted to Vice President and Assistant General Manager of the C3I Group for Air Force Systems at the MITRE Corporation, headquartered in Bedford, Massachusetts. Ferrari has spent the past three years he has been Vice President of that group, responsible for overseeing the conduct of the Air Force technical program.

MITRE is an independent, not-for-profit system engineering firm engaged in scientific and technical activities for the public benefit under contract to government agencies. Its activities in Bedford are sponsored by the U.S. Air Force and entail the development of command, control, communications, and intelligence (C3I) systems for national security.

Ferrari joined MITRE in 1971 as a member of the technical staff after a 10-year career in industry, working on navigation and communication systems. At MITRE, he has served as a group leader, associate department head, and department head for satellite communications. In 1981 he became Associate Technical Director (C3I) and in 1985 Technical Director of the Strategic Communications Division. He was promoted to Vice- President in 1986.

At MITRE, Ferrari held engineering positions with the DOT Satellite Data System, the Deagle, Teleodyne Adcom, and LFE Corporation. He received bachelor of science and master of science degrees in electrical engineering, both from Northeastern University. He is a member of IEEE and of the Tau Beta Pi and Eta Kappa Nu honor societies.

New Book: Aspects of Modern Radar

Dr. Eli Brooker of the Raytheon Company, a member of the faculty of the Institute of Modern Radar published by Artech House of Norwood. The book contains an introduction to the modern radar coverage of radar principles and systems. Covered are the trends to the year 2000 and beyond in radar technology, techniques and systems digital and analog signal processing; solid state transmitters; adaptive nulling; over horizon radars; 3-dimensional radars; and phase-phase scanned arrays. The book also provides a tutorial on the EGIS system; integrated microwave circuitry called MMIC, i.e., many transistors on a single chip just as is done in the computer industry with digital circuitry; monopulse principles beginning with the radar ambiguity function; lobe antennas; millimeter wave radar technology and systems; radar meteorology; and weather modification, i.e., the stealth aircraft type technology; and doppler weather radars which are used to detect thunderstorms, tornado formation, downbursts, and microbursts which are the cause of most airline accidents in the U.S.

The book also shows the latest efforts in extremum techniques for the parameters of over 200 radars from around the world. The book contains 17 chapters and 7 appendices, and is 1,000 pages long.

Annual Report Beta Lambda Chapter

Virginia Tech

Officers and Data

Fall 1988

President, J. Douglas Gibson; Vice President, Truls Henriksen; Recording Secretary, Kristin Zaker; Corresponding Secretary, Lisa Wald; Treasurer, Greg Wissinger; SEC Representative, Ralph Albecht; SEC Representative, Andrew Erler; Historian, Sandeen Shah; Faculty Advisor, Dr. W. J. Bauman; Number of Members, Approximately 40; Number of New Initiates, 22; Number of Initiation Meetings, 7.

Spring 1988

President, J. Douglas Gibson; Vice President, Truls Henriksen; Recording Secretary, Kristin Zaker; Corresponding Secretary, Lisa Wald; Treasurer, Greg Wissinger; SEC Representative, Ralph Albecht; SEC Representative, Andrew Erler; Historian, Sandeen Shah; Faculty Advisor, Dr. W. J. Bauman; Number of Members, Approximately 70; Number of New Initiates, 34; Number of Business Meetings, 7.

Programs and Activities

Student Organizations Showcase: Continued from 1987; 6 hours; Fall Semester — Fall Semester. This exposure for campus organizations at the beginning of the school year enables students to get information about all student groups on campus.

Tutoring: Continued; 100+ hours; Fall and Spring Semesters. Students are tutored at free clinics in the Electrical Engineering office during registration week to distribute registration forms and to provide assistance to students. This program is administered by student volunteers.

Class Registration: Continued; 48 hours; Fall and Spring Semesters — Eta Kappa Nu mans the registration table at the Electrical Engineering office during registration week to distribute registration forms and to provide assistance to students. This program is administered by student volunteers.

Happy Hours: Continued; 20 hours; Fall and Spring Semesters — Eta Kappa Nu hosts informal events to socialize with students and to distribute information about membership. This program is administered by student volunteers.
Annual Report
Gamma Delta Chapter
Worcester Polytechnic Institute

President, Donald C. Gano Jr.; Vice-President, Kenneth Desco-geaux; Secretary, Alison Gokin; Treasurer, Kathy Hepp.

Gamma Delta Chapter enjoyed a very successful spring semester this year at Worcester Polytechnic Institute (WPI). This year, we initiated 12 seniors, 22 juniors, three graduate students, and one professor. Throughout the year, we were able to provide opportunities for service and social activities. What follows in this report is a brief description of events at Gamma Delta chapter this year.

Full & Spring Barbecues: Each year, Gamma Delta chapter organizes barbecues for the faculty, staff, and students of the EE Department at WPI. This year, the weather was fantastic for both barbecues, in the fall and the spring. In all, close to 100 people participated in the fun with live music and dogs. These two events definitely provided a welcome break from the regular non-stop routine. All present, including those members working at the BBQ, had a great time.

One-on-One Tutoring: Begun last year, the on one-one tutoring program has continued to expand and is more successful than ever. All involved had a great time.

Teaching Awards: Continued: 10 hours; Spring Semester – Eta Kappa Nu presents two awards to professors for outstanding teaching: MIT Award, for everyone’s favorite professor, and the Outstanding Teacher Award, for everyone’s favorite professor and dinner at a fine local restaurant. The awards are made at the annual Electrical Engineering picnic.

EE Spring Picnic: Continued: 40+ hours; Spring Semester – Eta Kappa Nu and ISHEM co-sponsor the annual EE picnic. This year’s picnic was held at one professor’s farm. Food and entertainment were organized by all three societies.

Chapter Summary
Beta Eta Chapter
North Carolina State

Overview
This summary describes the activities of our chapter for the Fall and Spring semesters of the current academic year.

Pledge Activities
This chapter was responsible for at least four hours of time for its contribution to the chapter’s activities.

HKN Coffee Mugs: Coffee mugs with the HKN coat of arms were ordered and sold to all faculty members. In all, 45 mugs were ordered and sold (at cost).

Newspaper: The Gamma Delta Chapter’s Awards Committee provided a fair and just process for selecting the winners of the junior and senior EE’s. This year, Scott Drescher represents us as Outstanding Junior. Scott is currently studying at Duke University. He was recognized as Outstanding Junior EE. Plaques were awarded to him.

Peer Advising Day: Peer Advising Day was held to introduce new students to the faculty. This year’s event was hosted by Professor Russell Krackhardt.

Room Search Committee: In order to procure better working quarters, a joint committee of HKN, IEEE, and Signals officers was formed. The purpose was to provide detailed, written explanations why office space was needed by these groups and what new programs could be established if office space was available.

Fellowship Donation: Unfortunately, a dear member of WPI’s EE Department passed away in April. His family, as a testament to his memory, requested a donation from the Fellowship Committee.

Boston Red Sox Trip: As a social event, Gamma Delta Chapter members and their guests planned to attend a Boston Red Sox game on a Spring Sunday afternoon. Unfortunately, on the chosen day, the Red Sox were rained out. Some highlights included the Red Sox’s victory, however, the most out of the trip and enjoyed some time in Boston.

Tennis Tournament: A final social event was planned for Spring semester. The tournament was a fun way to end the semester with friendly competition.

The pledges spent their time formulating several disks, and then checking the current total of them. These disks were sold during the first week of the spring semester by members. The user’s guide for the project future plans include downloadable public domain engineering and math programs written by members.

The Newsletter project, a new project this year, was started to give our members news about the spring semester. The goal of this project was to start a newsletter for the Electrical Engineering students and faculty. Topics such as faculty research and general student concerns (E.L.T., graduation deadlines, etc.) were addressed. All pledges were responsible for getting material to the committee such as interviews conducted with faculty members. The particular pledge members were responsible for setting up the newsletter format, entering all the articles into the computer publishing program, and arranging the general newsletter content. The entire Newsletter Committee was responsible for this letter will be distributed to all technical businesses in the Research Triangle Park and to members of other Engineering committees reported by our department head.

The Tutorial project is an ongoing project. Although our audience has changed to different classes, we have done tutorial series for the Fall and Spring semesters for many years. This year we gave review sessions for the ECE 221 exam and helped students prepare for the ECE 241 exam. There were classes for all classes and for non-major engineering majors. In these weekly tutorials, one member was responsible for each course that pertains to the week’s subject material.

The pledgers’ responsibilities were minimal and there was a tendency for them to follow the subject of the class. The pledgers’ responsibilities were minimal and there was a tendency for them to follow the subject of the class.

The pledges spent their time formulating several disks, and then checking the current total of them. These disks were sold during the first week of the spring semester by members. The user’s guide for the project future plans include downloadable public domain engineering and math programs written by members.

The Newsletter project, a new project this year, was started to give our members news about the spring semester. The goal of this project was to start a newsletter for the Electrical Engineering students and faculty. Topics such as faculty research and general student concerns (E.L.T., graduation deadlines, etc.) were addressed. All pledges were responsible for getting material to the committee such as interviews conducted with faculty members. The particular pledge members were responsible for setting up the newsletter format, entering all the articles into the computer publishing program, and arranging the general newsletter content. The entire Newsletter Committee was responsible for this letter will be distributed to all technical businesses in the Research Triangle Park and to members of other Engineering committees reported by our department head.

The Tutorial project is an ongoing project. Although our audience has changed to different classes, we have done tutorial series for the Fall and Spring semesters for many years. This year we gave review sessions for the ECE 221 exam and helped students prepare for the ECE 241 exam. There were classes for all classes and for non-major engineering majors. In these weekly tutorials, one member was responsible for each course that pertains to the week’s subject material.

The pledgers’ responsibilities were minimal and there was a tendency for them to follow the subject of the class. The pledgers’ responsibilities were minimal and there was a tendency for them to follow the subject of the class.
to help students in obtaining a perspective of the teacher's test styles. This opportunity is open to all electrical engineering students.

The **Publicity** project was responsible for posting all notices pertaining to meetings and special events, such as guest speakers for open meetings. Each pledge on this project was assigned to a particular floor in the electrical engineering building to post the necessary signs, and then remove the signs following the meetings.

The **Bridges** project enabled both the large bridge outside of our building and the brass letters in a cement plaque, where all major societies are represented, to be kept in proper condition. The pledge(s) electing this project maintained both symbols for the duration of the semester.

**Additional Activities**

Our activities during the year also included two informal speaker meetings and two banquets, also featuring guest speakers. Topics ranged from "Video Conferencing and Its Management" to "Ethics." Although the banquets were primarily for the members and their guests, the informal speaker meetings were open to all students.

In a final support to our department, our chapter supplied ushers to handle our department's graduation ceremonies in May.

**Final Notes**

As of this school year, four new officers were elected for the positions being vacated. Additionally, the office of secretary was divided into the traditional two offices, Corresponding and Recording Secretaries. These five members will serve Beta Eta for the 1989-1990 school year.

Respectfully submitted,
Secretary, HKN—Beta Eta

---

**Annual Report**

**Beta Kappa Chapter**

**Kansas State University**

The 1988-1989 academic year was a successful year for the Beta Kappa Chapter. A listing of officers follows: President, Margaret Green; Vice-President, Brett McCammon; Treasurer, James Lebak; Recording Secretary, Scott Burgett; Corresponding Secretary, Don Gruenbacher; Bridge Secretary, Chris Felts; Faculty Advisor, Dr. Richard Gallagher.

Officers met every Tuesday at 4:00 p.m. during the Fall semester to discuss chapter business. Activities that were conducted in the Fall included senior EECE student composite pictures, Royal Purple (yearbook) pictures, a demonstration interview in which a senior was actually interviewed in a large lecture hall by an AT&T recruiter, and tutoring for circuit theory examinations. These activities involved large numbers of electrical engineering students and Eta Kappa Nu actives. The Open House EECE Curricula Display, an Eta Kappa Nu responsibility, was also frequently discussed.

During the Spring semester, officers met every Tuesday at 11:00 a.m. to discuss chapter activities. During the Spring, letters were sent to potential members inviting them to an informational meeting held in the Student Union. At the meeting, students were informed about Eta Kappa Nu and the process involved in becoming a member. A great deal of time and energy went into planning and constructing the Open House EECE Curricula Display. Eventually, a design that consisted of prisms and brightly colored yarn was constructed, illustrating both the electrical and computer engineering B.S. degrees. Two three-minute videos were incorporated into the display. The display received second place in the College of Engineering. Voting was also conducted for the 1989 Eta Kappa Nu Distinguished Faculty Award. Only EECE students may vote for the EECE faculty member they feel is most outstanding. This year's recipient was Dr. Medhat M. Morcos. Dr. Morcos received his award at the Initiation Banquet. Forty-one outstanding students were initiated at the banquet. Finally, new officers were elected April 25.

The Beta Kappa Chapter's officers for 1989-1990 are as follows: President, Scott Rhoades; Vice-President, Wai Hong Chong; Treasurer, James Lebak; Recording Secretary, Gregory E. Long; Corresponding Secretary, Loren N. Martin; Bridge Secretary, Michael K. Headings.

This report is respectfully submitted to the National Office of Eta Kappa Nu on 2 May, 1989, by Scott Burgett, Recording Secretary, Beta Kappa Chapter.