Cecelia Jankowski
1990 Winner
Outstanding Young Electrical Engineer Award

Feature Articles:
Announcing The Vladimir Karapetoff Eminent Members' Award
Castle Howard (from the files of the late Paul K. Hudson)
The Eta Kappa Nu Board of Directors has announced the establishment of an award in honor of Vladimir Karapetoff, an Eminent Member of IEEE, who died in 1948.

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

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

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

Dr. Karapetoff was born in St. Petersburg, Russia, January 8, 1876. His father was an engineer and his mother a student at a military medical school.

Dr. Karapetoff emigrated to the United States in 1900, and became a naturalized citizen in 1909. In 1904 he joined the engineering faculty of Cornell University as an assistant professor. In 1908 he was made a full professor and continued in that capacity until he retired from active teaching in 1939.

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

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

His colleagues remembered him as an accomplished musician on piano, violinello, and double bass. He toured the country giving recitals and lectures on Wagner, and other major composers, and developed a five-string cello on which violin music could be played. He received an honorary Doctor of Music degree from the New York College of Music.

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

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

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

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

Nominations for the first Vladimir Karapetoff Eminent Members’ Award are now being solicited. Nomination forms and guidelines may be obtained from Donald Christiansen, Eminent Member Committee Chairperson, 434 West Main Street, Huntington, N.Y. 11743.
contributions to the areas of signal processing and microelectronics design, and for the application of his technical knowledge for the betterment of his community.

Kellie J. Peterson is a Supervising Engineer of Transmission Planning at the Los Angeles Department of Water and Power, Los Angeles, California. She is named Honorable Mention for 1990 by virtue of her notable contributions to the development and testing of high voltage direct current transmission systems; and, for her contributions to civic, social, and professional societies.

Four other engineers were recognized as first time finalists:

- M. Abdal Awal, AT&T Bell Laboratories, Princeton, New Jersey
- Alan C. Bovic, The University of Texas, Austin, Texas
- Donald D. Davis, Jr., AT&T Bell Laboratories, Norcross, Georgia
- Jeffrey L. Scruggs, Texas Instruments Incorporated, Dallas, Texas

The award winners were honored for their contributions to electrical and computer engineering, and to society at large. Cecelia Jankowski was nominated by Norman Lowin of the Grumman Aerospace Corporation. Patrick O. Nunally was nominated by Dr. H. P. Schmid, Air Defense Systems Division, General Dynamics, Pomona, California. Kellie J. Peterson was nominated by Vernon L. Pruet, Engineer of System Development, Los Angeles Department of Water and Power, Los Angeles, California.

The Eta Kappa Nu Outstanding Young Electrical Engineer Award is given annually to young electrical and computer engineering graduates for meritorious service in the interest of their fellow man as well as for outstanding achievements in their chosen profession. Selection of the winner and honorable mention(s) is based on accomplishments; it is not influenced by the newsworthiness or commercial value of a contribution. As we all know, it sometimes takes many years for technical discoveries to be included in commercial product development. A well known example is the commercial applications of technology promoted by NASA in the 1960's and 70's, which gave the world such diverse products as Teflon and miniature components. The process of facsimile was invented in 1842, yet only recently have FAX machines become a large commercial success. Other examples include the areas in which this year's winner works: computer aided engineering, and digital signal processing.

In the same way, contributions to local neighborhoods and schools, religious organizations and the arts can take years to reach fruition. The Eta Kappa Nu recognition is awarded to electrical engineers to emphasize that their service to mankind is manifested...
The nominations for the 1991 awards should be submitted to the Chairman of the Award Organization Committee, or to the Executive Secretary of Eta Kappa Nu, by August 1, 1991. An eligible candidate is one who:

- has an electrical engineering degree (BS, MS, or PhD) from a recognized U.S. Engineering school,
- will have been graduated not more than 10 years as of May 1, 1991 from a specified baccalaureate program, and
- will not have reached his or her 35th birthday as of May 1, 1991.

Awards are based upon (1) the candidate's achievements of note in his or her chosen work including inventions of devices or circuits, improvements in analyses, discovery of important facts or relationships, development of new methods, exceptional results in teaching, outstanding industrial management, or direction of research and development; (2) the candidate's contributions to professional organization, such as activity in philanthropic, religious, charitable, or social enterprises, leadership in youth organizations, or engagement in civic or political affairs; and, (3) the candidate's cultural and aesthetic development, such as work done in the fine arts, architecture or the dramatic arts. Studies in history, economics, or politics are also highly valued as well as any other noteworthy accomplishments including participating in professional societies and other organizations.

The Award Organization Committee members are:

- Michael R. Hajny, Scientific Columbus, Inc. (Chairman);
- Ralph J. Preisig, IBM Corp. (Vice Chairman/Secretary);
- Clarence A. Baldwin, Westminster Electric Corp.;
- Robert A. Bartolini, SRI David Sarnoff Research Center;
- Donald Christiansen, IEEE Spectrum;
- James A. D'Arcy, General Electric Company;
- Larry Dvon, Consultant (formerly of American Electric Power Service Corporation);
- Irving Engelso, Technical Activities, The Institute of Electrical and Electronics Engineers, Inc.;
- Anthony F. Gabrielle, Gulf State Utilities; Quayne Gennaro, Design by Hilton, Inc.;
- William R. Grotj, Consultant (formerly of IBM Corporation);
- James D. Heshon, Jr., Public Service Electric and Gas Company; William E. Murray, Douglas Aircraft Company; Berthold Sheffield, Jr., SRI Corporate (retired); Joseph J. Strano, New Jersey Institute of Technology; Lawrence D. Wechsler, General Electric Company.

not only by achievements in purely technical areas, but in a variety of other ways as well. Eta Kappa Nu holds that an education based upon the acquisition of technical knowledge and the development of analytical and logical thinking is a prerequisite to achievement in many lines of endeavor. This year's winner joins a long list of individuals who have brought distinction to themselves, their community and the profession.

Those honored with this prestigious award are selected each year through a well-defined process which has remained virtually unchanged since its inception. The nomination process involves the initiative of the nominator and the participation of a number of references in support of the candidate. The dossiers all nominees are carefully screened by the Award Organization Committee which selects up to ten finalists. These finalists are judged by a jury of highly prestigious leaders in the profession for final selection of the winner and honorable mention(s).

In 1990, the Jury of Award consisted of the following individuals:

- Henry L. Bachman, Past President of IEEE, and Vice-President, Hazeltine Corporation, Greenlawn, New York
- Arthur Hauspurg, Chairman of the Board and Chief Executive Officer, Consolidated Edison of New York, Inc., New York, New York
- Dr. Hisashi Kobayashi, Dean, School of Engineering and Applied Sciences, Princeton University, Princeton, New Jersey
- Dr. Peter Smith, Vice-President Engineering, NBC Operations and Technical Services, 30 Rockefeller Plaza, New York, New York
- Robert A. Arehart, President, Eta Kappa Nu Association
- Michael R. Hajny, Chairman of the IKKN Award Organization Committee, and Vice-President Engineering, Scientific Columbus, Inc., Columbus, Ohio

Nominations for the award are solicited each year through the Eta Kappa Nu Award Organization Committee. Nominations may be made by any member, or group of members, of Eta Kappa Nu; by leaders from industry; by any Section or Society of the Institute of Electrical and Electronics Engineers, Inc.; by the head of the electrical and computer engineering department of any of his university; or by other individuals or groups, who in the opinion of the Award Organization Committee, are properly qualified to make nominations.

David Medrow Awarded Honorable Mention in Norman R. Carson Outstanding EE Junior Program

David Medrow has been selected for Honorable Mention in the 1990 Eta Kappa Nu Norman R. Carson, Outstanding EE Junior Award Program. Having served us President, Vice-President, and Special Programs Chairman for the Tri Beta Pi, and as Treasurer, Recording Secretary and Social Chairman for Eta Kappa Nu, Gamma Theta Chapter, at the University of Missouri Rolla (UMR), he has been very active in honor society activities. Pursuing a Baccalaureate Degree in Electrical Engineering, he has maintained a 3.94/4.0 GPA. He has been on the Honor Roll every semester and continually enrolled in the UMR EE Honors Program. He is a Board of Curators Scholar, a Missouri Society of Professional Engineers Scholar and recipient of the William L. Everett Student Award of Excellence from the National Engineering Consortium.

He has been active also in Phi Eta Sigma Freshman Honor Society, Phi Kappa Pi, Beta Sigma Honor Society, Blue Key National Honor Society, Kappa Mu Epsilon Mathematics Honor Society, Kappa Kappa Pi Honorary Band Fraternity, UMR Chancellors Leadership Class, IEEE Professional Society-Student Branch, Lutheran Student Organization, Concert Band, Pep Band, and Marching Band as a Souspa Leadere.

Having career interests in production and the production environment, his professional employment includes Amoco Chemicals Company, Texas, Instrument and Electrical Engineering, summer 1990, and four Coop Work Periods with General Dynamics, Fort Worth, Texas.

As a UMR/Amoco summer student, he coordinated with vendors, developed scope of work documentation, did technical research and modification, submitted engineering proposals, and received training in quality process and statistical quality control, time management and general orientation.

As a UMR-General Dynamics Coop student, he was involved in the following projects during his four Coop Work Periods: Mission Planning; Avionics System Design; Flight Test Plans and Ground Support Design.

In Mission Planning, he programmed in C for the display of digitized mags and worked with Atari Honor Society, Graphics Workstations. In Navigation System Design, he performed preparation of system and software requirements documentation for upgrades to the P-3C/D and worked on an Apollo Workstation. In Flight Test Plans and Controls, he was involved with preparation of Flight Test Department inputs to statements of work and estimates. He also prepared flight test modification data documentation. In Radar Design, he worked on the development of analog, RF, and digital circuits on a new workstation and fielded documentation. He also performed design work on the circuits.

He is experienced with the Assembly, C, PORTTRAN, BASIC and FORTH languages and has gained valuable experience and insight through his earlier work in the UMR Computer Center and the UMR Bookstore.

He has also been very active in intramural sports: softball, volleyball and soccer.
Drifting Around the Kingdom

Part Four

Castle Howard

by

Paul K. Hudson

EDITOR'S NOTE: This article was prepared by Paul Hudson just before his death. We felt it appropriate to include it in this issue. Other articles prepared by Paul for future issues of the Bridge are on file in the Bridge Office and will be used at later times.

Our room in the Viking hotel at York had quite a number of surprises and pleasures. The hotel is located right on the banks of the Ouse river and I spent a lot of time just gazing out of the window at the scenic charter boats passing below. The river has always been important to the city. In centuries past it was the main method of transportation and commerce. Now it is pleasure. (see photo)

There was another matter that surprised me but shouldn't have. It is something that every school child knows about but I had never before experienced it. I woke up in the middle of the night and noticed that the room was not as dark as it should have been. It was about 2:00 A.M. I got up and went over to the window and looked out. To my surprise the sky was a bright blue. Sunrise had started. In the winter time the days in York must be very short.

Another surprise I got was when I went into the bathroom the first time to wash my hands. The basin looked like any other. There were two faucets—one hot and one cold—and a spigot where the water mixed to give the right temperature. But when I started to wash I got a nasty burn. I then examined the spigot and found that it had a septum in it that prevented the hot and cold water from mixing. Why in the world a plumbing company would manufacture anything like that I wouldn't know. Maybe he hates the world and wants to burn people.

I got the impression that the citizens of York really enjoy their city. On Friday and Saturday nights the young people would parade the town in large groups, singing songs and in general having a good time. Some of the wilder ones would take off most of their clothes and jump off the bridges into the river. That was against the law but young people don't concern themselves with the law very much. One Sunday morning after the service in the York Minster we came outside and found a small amateur circus performing in King's Square. After they finished their
performance they took up a free-will offering. (see photo). That made me a little homesick because I have watched the same sort of thing in Central Park, New York, on many a Sunday afternoon.

I had one other item of business or pleasure before I left York. Castle Howard is only fifteen miles north of town and no one should ever come to York without going there. The Howard family of England has been important for centuries. Of course, like many other famous families, they got into trouble once in a while by choosing the wrong side in a conflict, or otherwise misbehaving. Catherine Howard was one of the wives of Henry VIII and he got rid of her the hard way because he thought she had been naughty.

Howard Castle is one of the most magnificent residences in the world. Anyone who doubts this should try to buy it. Price the house and all of its treasures inside and we are talking about maybe half a billion dollars. It really is a residence but, in truth, the Howard family lives in only one wing. The rest of it is used to obtain tourist coins which are needed to pay the real estate taxes. Being rich is not as much fun as it used to be.

After we paid our way in I asked for the office of the Curator and Director, Mr. Edmund Lamb. He and I have had correspondence over past months and I very much wanted to meet him. He welcomed us warmly in his office. He is a very cordial and intelli-

gent man, although maybe a bit of a roughneck. After we got the pleasantries over with he said to me, "Hudson, are you on holiday?" I said that I was. He replied, "Then what in the devil are you doing here. When I go on holiday I always go to Miami beach." I tried to explain that I get all the sun shine I want in my home town but he did not see how that was possible.

Castle Howard has many treasures but there was one I wanted to see more than any other. They have there the altar of the Oracle at Delphi. Edmund knew I wanted to see it so he took us there himself. It was located in a corner of a hall. I was astonished. I said to Edmund, "You people don't seem to realize that this altar is one of the most historic and valuable things in the whole world." He laughed and said, "Yes, I know. My friends down at the British Museum tell me that Castle Howard is the only place in England that would fail to put the altar in the center of the most important room in the place." After that statement I saw no point in saying anything more. (see photo)

The Oracle at Delphi is usually portrayed as a little old woman. She has an altar where famous people come to ask their fortune. If a King was about to
start a war he would go to her and ask what the result would be. She would answer in some obscure way such as, "If you see three birds fly over an oak tree on the day the battle starts, you will win." That sort of thing. Perhaps in the beginning it was that way. But in later years the Oracle business was taken over by a powerful political machine that tried to influence the world. And I might add, it became very wealthy from the fees.

I examined the altar and found that it had three holes in the top. These were to hold the tripod which in turn held the sacred flame. The tripod and flame were lost long ago. (see photo)

In a music room there were several antique pianos, and a lady who told us about them, and the rest of the room. I said to her, "I think the one on the end is a harpsichord." She replied, "No, it is a piano." I looked at it again and then said, "I know I would get killed if I touched it but would you be allowed to strike one key for me?" She said, "I might get in trouble but I will do it anyway." She struck a key. It was a piano. It must be that sometime in the past pianos were patterned after harpsichords, or vice versa.

In the Great Hall I said to a guide, "Why do you call this place a Castle. To be a castle, the place must be fortified and there are none here that I can see." He said, "Well, there is a wall outside." He was right but it was not much of a fortification. It did not even go completely around the building. The building is less than 300 years old and there was no need for castles in the 18th century. I think it was called a castle in the same sense that every man calls his home a castle. But everything considered, it was one of the most magnificent buildings I have ever seen.

There are a number of out-buildings including a family mausoleum that was so beautiful that Walpole said it would tempt one to be buried alive, and a Temple to the Four Winds that Sacheverell Stittwell said was a greater work of art than most of the Cathedrals.
Barry W. Johnson is an Associate Professor of Electrical Engineering at the University of Virginia. He received the B.S.E.E. (with high distinction), M.E.E.E., and Ph.D. degrees from the University of Virginia in 1979, 1980, and 1983, respectively. Dr. Johnson was with the Government Aerospace Systems Division of Harris Corporation from 1982 to 1984 and served as an Adjunct Professor at the Florida Institute of Technology in 1983-1984. He joined the University of Virginia as an Assistant Professor of Electrical Engineering in 1984 and was promoted to Associate Professor in 1989. His research teaching interests are in the areas of fault-tolerant computing, VLSI testing, and microcomputer-based systems. He is the author of a textbook entitled "Design and Analysis of Fault-Tolerant Digital Systems" which was published by Addison-Wesley Publishing Company in 1989. In addition, Dr. Johnson has served as an advisor or co-author of more than 50 papers in his research areas of interest.

In 1984 Dr. Johnson co-founded the Center for Minicomputer Integrated Systems (CSIS), an interdisciplinary research center focused on fault tolerance, testing, and VLSI technologies. The CSIS currently involves 10 faculty members, 2 full-time research staff members, and approximately 30 graduate students. The Center receives research funding from the National Science Foundation (NSF), the Defense Advanced Research Projects Agency (DARPA), the Virginia Center for Innovative Technology (VIT), the National Aeronautics and Space Administration (NASA), and six industrial sponsors.

Dr. Johnson has taught courses on fault-tolerant computing, microcomputers, digital systems design, advanced switching theory, and microcomputer interfacing. For the past two years he has chaired the department's Undergraduate Committee which has undertaken a detailed study and revision of the electrical engineering curriculum at the University of Virginia.
Kappa Alpha Chapter Installed
Northern Illinois University

by
Salvador Garcia and James P. Bobis

Northern Illinois is a young and dynamic engineering school. The state of being new has a challenge all of its own. Northern first needed to acquire ABET accreditation, and we achieved that milestone in 1990. After the accreditation, Northern Illinois University obtained the green light to start the honor society for electrical engineers. The challenges that Northern Illinois's engineering program has encountered has added to the strength of this young engineering school.

Northern Illinois University's Kappa Alpha Chapter of Eta Kappa Nu was installed on March 22, 1991. The formal induction ceremony was conducted at an off campus location, the Country Inn. A banquet preceded the formal ceremony. On this occasion, ten undergraduate students, twelve graduate students, five graduates, and three faculty members were inducted. The former chair of the electrical engineering department, Dr. Newell, gave an appropriate speech which stressed the significance and honor of belonging to Eta Kappa Nu.

The officers of this chapter are as follows:
President: Michael J. Costello
Vice-President: Salvador Garcia
Treasurer: Jerry P. Morrow

Corresponding Secretary: John S. Peterson
Faculty Advisor: Dr. James P. Bobis

Altogether, Eta Kappa Nu inducted 30 charter members into the chapter. The ten undergraduate initiates are:
Michael Costello
Salvador Garcia
Jerry Morrow
John Peterson
Paul Maehan
Scott Lang
Tom Gilh
Steve Ferris
Robert Gatze
Marcello Chidelli

The twelve graduate initiates are:
Dan Greenwood
Jeff Kirchman
Jim Berens
Vytuntas Brazniunas
Sei-Yu Tsai
Yue Wu
Pei Chen
Darren Castle
Shi Lan
Zhibing Pan
Shuhong Zhu
Jier Chen

The faculty initiates are Dr. Genis, Dr. Kuo, and Dr. Woo. Five previous graduates were also inducted into this charter chapter and they include:
Charles Husted
Robert Hunter
Dan Donato
Mark Kotzan
Yi Yuan

Installing Officer with Kappa Alpha Chapter Officers: (from left to right) Dr. James P. Bobis (Faculty Advisor), John S. Peterson (Corresponding Secretary), Jerry P. Morrow (Treasurer), Dr. David G. Meyer (Representative from the Board), and Michael J. Costello (President).
Iota Omega Chapter Installed
California State University, Fullerton

by
Maqsood A. Chaudhry

Initiates and guests at the banquet.

December 21, 1990 was truly a historic day when the Iota Omega Chapter was installed at California State University, Fullerton.

Although the Honor Society, Phi Kappa Phi, is on the campus, this installation marked the establishment of the first Honor Society within the School of Engineering.

The installation team representing the Los Angeles Alumni Chapter of Eta Kappa Nu was headed by Dr. Richard Cockrum. Initiation ceremonies were conducted in the conference room of the Engineering building and were followed by a banquet at the Fullerton Marriott.

The initiation ceremonies began with the presentation of the Chapter Charter to Dr. Maqsood A. Chaudhry, HKN Faculty Advisor, by Dr. Cockrum.

He explained the purpose and goals of Eta Kappa Nu and instructed the initiates on the requisites of membership in HKN. This was followed by the initiation ceremony.

Mr. Tom Rothwell, Vice President and Group Manager of Data System Group, Hughes Aircraft Co., was keynote speaker at the banquet and gave a very inspiring address. He congratulated new members of HKN on their induction and instructed them that they, as Electrical Engineers, should always seek new knowledge and challenges and strive for excellence.

He emphasized the importance of professional integrity. He stressed the need for participation of new members in the activities of Alumni Chapters of HKN.

Dr. Andy Bazar, Dean, School of Engineering also addressed the new members. He congratulated the
CHAPTER ACTIVITIES

Purdue Beta Chapter Wins Outstanding Chapter Award for the Tenth Consecutive Year
A Feature Article is being prepared for August 1991 Bridge

CONGRATULATIONS BETA!

1989-90 Annual Report
Beta Gamma Chapter
Michigan Tech

INTRODUCTION
During the 1988-1990 school year, the Beta Gamma Chapter of Eta Kappa Nu at Michigan Technological University endeavored to achieve the goals and ideals for which the founding fathers of Eta Kappa Nu stood.

This report contains the major activities of our chapter at Michigan Tech. Our intent is to show our chapter is acceptable according to the guidelines from which we were formed. We will try to be as precise and clear as possible in describing our activities in order to keep our report simple and to the point.

It is the hope of all the members and officers of Beta Gamma that our chapter and the following report are favorable to the review committee appointed by the Board of Directors of Eta Kappa Nu.

CAMPUS ACTIVITIES
Options Night: Recurring: 25 hours: 8 members; Chairmen Michael Collins, Walter Hart; Fall Semester—Every year, during fall term, Beta Gamma puts on "Options Night" for EE students, although anyone is welcome to attend. The purpose of this event is to let EE students who have not chosen an option view a demonstration about each of the options offered. Hopefully, this will aid the student in determining the right option for him/her.

During Options Night, six demonstrations are performed in the electrical engineering building. Each of these demonstrations represents one of the six options in electrical engineering offered at Michigan Tech. Each demonstration lasts approximately ten minutes and is performed by a faculty member.

Beta Gamma has annual events, the project went over very well and will be done again next fall.

HKN/IEEE Tour: New: 32 hours: 7 members; Chairman Kathleen Muhonen—Beta Gamma, along with IEEE, put on a tour sponsored by GE. This tour took place at the Marquette General Hospital in Marquette, Michigan. During this tour, EE students and faculty were allowed to observe and learn about the Microwave Resonance Spectrometer, one of the newest facilities at the hospital.

A total of thirty-six students and two faculty members attended. All of the students were pleased with the tour, and Beta Gamma intends to participate in events like this again.

Mr. Tom Rothwell, the keynote speaker at the banquet.

Electrical Engineering Department for the successful installation of this HRN Chapter as well as for a very successful ABET visit, which took place in October of 1990.

The installation ceremonies and banquet were attended by, among others, Dr. Andy Bazar, Dean, School of Engineering & Computer Science, Dr. Young Kwon, Chairman, Department of Electrical Engineering and family members and friends of the new members.

The President of the Zeta Omega Chapter at the University of California, Irvine, Mr. Parmesh Gopi represented his Chapter. The Epsilon Tau Chapter at the University of California, Santa Barbara was also represented.

The activities of the Iota Omega Chapter during this semester included tutoring by initiates and a picnic which was attended by the Initiates and their family members. As one of its near future goals, the chapter plans to set up a small library inside the department of Electrical Engineering, which will house a small collection of used Electrical Engineering books which are used very often, as well as reference material to current textbooks used by the department. The library will also serve as a study room and will be funded through donations. The Chapter believes that the proximity of the library to the department will make it more accessible than the University library which is located in a different building.

The Iota Omega Chapter wishes to extend special thanks to Dr. Young D. Kwon, Dr. Andy Bazar and Dr. Richard Cockrum for their efforts and support in the installation of the Chapter. My personal, grateful thanks go to Dr. J. Robert Betten, Executive Secretary of HRN, without whose help, this historic event would not have been possible.

Members:
Muqaad Ahmed Chaudhry
Dean Alan Gravdal
Ronald Craig Holdsworth
Donald Lee Walker
Michael Thomas Kosec
Diana Ivonne Gutierrez
Scott Paul Morris
Mozhdeh Eghterafi
Najafabadi

Kevin Vasili
Michael Anthony
Goliakson
Aseel Anabtawi
Philip George Michaels
Benjamin John Pauly
Dana Gelles
Eric Charles Wight
Karl Patrick Kennedy

Installation Team:
Wheatstone: Richard Cockrum
Faraday: Jimmie D. Huff
Ohm: Stuart McCullough
Ampere: Mohammad A. Mousoudi
Faculty Advisor: Muqaad A. Chaudhry

Mr. Tom Rothwell, the keynote speaker at the banquet.
CONCLUDING REMARKS
The preceding report was written by the Beta Gamma President, Kathleen Muhonen. Details have been omitted and some approximations were made due to taking minutes. Committee chairs also held committee meetings as needed.

SERVICES
Tutoring: Recurring; 66 hours; 15 members; Chairman Deborah Metz—Beta Gamma offers tutoring once a week for approximately two hours. This tutoring is open to all EEE classes offered, including classes for non-majors. The tutoring room is set up set special tutoring sessions the night before all course exams. Since these classes are required, the students who did not attend tutoring would be most beneficial if offered in this way.

FUND RAISING
Coffee: Continued; 200 hours; 30 members; Chairman Rachel Verellen—As a service and fund raising project, Beta Gamma supplied coffee in the library of the EE building. Members were responsible for maintaining the service. Since the new hours were turned over to the chapter treasurer to purchase supplies as needed.

T-shirt Sale: New; 55 hours; 6 members; Chairman Dave Gold—As a new fund raising project, Beta Gamma put on a T-shirt sale. The proceeds were turned over to electrical engineering at Michigan State University. Since the art work were not presented here. The sale had an excellent response. All proceeds were turned over to the chapter treasurer for future use of the chapter.

1989-90 OFFICERS
Fall Officers
President—Truls Henriksen
First Vice-President—Eric Miller
Secretary—Kurt Schabach
Treasurer—Philip Clayton

New Officers Elected—Winter Term
President—Kathleen Muhonen
Vice-President—Richard Verellen
Treasurer—Dwight Parkinson
Library Chair—Bob Navaroli

Annual Report
Beta Lambda Chapter
Virginia Polytechnic
Officers and Data
Fall Officers
President—Truls Henriksen
Vice-President—Eric Miller
Recording Secretary—Kurt Schabach
Corresponding Secretary—Philip Clayton

T-shirt Sale
No.
New Officers
No. of Initiates

EGG 1990

PROGRAMS AND ACTIVITIES
Expo 89: Recurring; 25 hours; Fall Semester—Spring Semester—Eta Kappa Nu along with the student chapter of IEEE and ISHIM arranges for professors from each specialty group within the department to make a short presentation to the Electrical Engineering students on courses offered within each specialty. This event is going to be a great way for students and faculty to interact and give a choice of selection of senior courses about the diversity of options within the department.

Class Registration—Recurring; 48 hours; Fall and Spring Semester—Eta Kappa Nu has the registration in the EE office during class registration week to distribute registration forms and provide assistance to students.

Tutoring: Recurring; 100 hours; Fall and Spring Semester—Eta Kappa Nu provides free tutoring upon request to students in the Electrical Engineering program and also to students in other engineering fields needing assistance with the electrical engineering requirements of their particular field. Students are referred to the Tutoring Chairman either directly through the association publicity or through the undergraduate advisor.

Career Forum: New; 120 hours; Fall Semester—In order to be a service organization to the student as well as faculty. This year Eta Kappa Nu organized a two day program. Day one consisted of on-campus interviewing, resume writing, and professional behavior specifically for Electrical Engineering students. The most successful was the most helpful. On that day four professionals formed a panel which discussed career options for Electrical Engineers. One speaker addressed the question of what makes a good Electrical Engineer in business fields. Another presented the naval programs for EE's. A third who was a practicing Electrical student talked also a graduate student in our field. The last panel was kept to the last day of the College of Engineering. He gave general advice; however, he advocated the benefits of pursuing careers in academies. This event is strongly recommended for students and faculty.

New Member Initiation: Recurring; 20 hours; Fall and Spring Semesters—Officers of the student association arranged the selection of new members, and conducted the traditional initiation of the new members into Eta Kappa Nu. The event included the initiation ritual, dinner after-dinner speech, and a reception with the department administration.

Technical Elective Forum: Recurring; 50 hours; Fall and Spring Semesters—Eta Kappa Nu along with the student chapter of IEEE and ISHIM arranges for professors from each specialty group within the department to make a short presentation to the Electrical Engineering students on courses offered within each specialty. This event is going to be a great way for students and faculty to interact and give a choice of selection of senior courses about the diversity of options within the department.

Engineering Open House: Recurring; 7 hours; Spring Semester—This event was organized on the college level by Tau Beta Pi, HKN, IEEE, and ISHIM and was an excellent forum where students and faculty could interact with the engineering professionals and current students.

Student Survey: Recurring; 70 hours; Spring Semester—This survey of the department and the administration of the course was altered significantly. The purpose of the survey to take to the students for information about schedules, classes, textbooks, software, and general feeling of the students. Also, the survey was administered late in the spring semester.

T-shirt Sale
No.
No. of New Initiates
No. of Business Meetings

President—Truls Henriksen
First Vice-President—Eric Miller
Secretary—Kurt Schabach
Treasurer—Philip Clayton

T-shirt Sale
No.
New Officers
No. of Initiates

EGG 1990

PROGRAMS AND ACTIVITIES
Expo 89: Recurring; 25 hours; Fall Semester—Spring Semester—Eta Kappa Nu along with the student chapter of IEEE and ISHIM arranges for professors from each specialty group within the department to make a short presentation to the Electrical Engineering students on courses offered within each specialty. This event is going to be a great way for students and faculty to interact and give a choice of selection of senior courses about the diversity of options within the department.

Class Registration—Recurring; 48 hours; Fall and Spring Semester—Eta Kappa Nu has the registration in the EE office during class registration week to distribute registration forms and provide assistance to students.

Tutoring: Recurring; 100 hours; Fall and Spring Semester—Eta Kappa Nu provides free tutoring upon request to students in the Electrical Engineering program and also to students in other engineering fields needing assistance with the electrical engineering requirements of their particular field. Students are referred to the Tutoring Chairman either directly through the association publicity or through the undergraduate advisor.

Career Forum: New; 120 hours; Fall Semester—In order to be a service organization to the student as well as faculty. This year Eta Kappa Nu organized a two day program. Day one consisted of on-campus interviewing, resume writing, and professional behavior specifically for Electrical Engineering students. The most successful was the most helpful. On that day four professionals formed a panel which discussed career options for Electrical Engineers. One speaker addressed the question of what makes a good Electrical Engineer in business fields. Another presented the naval programs for EE's. A third who was a practicing Electrical student talked also a graduate student in our field. The last panel was kept to the last day of the College of Engineering. He gave general advice; however, he advocated the benefits of pursuing careers in academies. This event is strongly recommended for students and faculty.

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