

# BRIDGE of Eta Kappa Nu

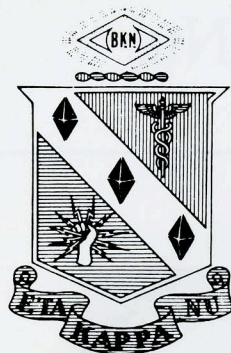


**Constance J. Chang-Hasnain**  
**1991 Winner**  
**Outstanding Young Electrical Engineer Award**

**Feature Articles:**

**Chapter Activities Award Winners**  
**Southampton (from the files of the late Paul K. Hudson)**  
**Epsilon Beta Chapter Hosts HKN National President D'Arcy**





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

**May 1992**

**Vol 88-No. 3**

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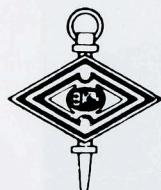
**Michael Hajny**

**The Late Paul K. Hudson**

**Alan Lefkow**

**Craig R. Smith**

**Gerald Walker**



The BRIDGE is published by the 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 Mater by distinguished scholarship activities, leadership and exemplary character and to help these students progress by association with alumni who have attained prominence.

The BRIDGE is published four times annually—November, February, May, August and is published by Eta Kappa Nu, Haywood Printing Company, 5th & Ferry Sts., Lafayette, Indiana. Second class postage paid at Lafayette, Indiana. Eta Kappa Nu Association, Subscription price: three years, \$12, Life Subscription, \$48.

Address editorial and subscription correspondence and changes of address to:

**HKN BRIDGE, P.O. Box 2107**  
**Rolla, MO 65401**

Postmaster: Send address changes to: HKN Bridge, P.O. Box 2107, Rolla, MO 65401.

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## **NOTICE**

### **THE HKN**

### **MEMBERSHIP FEE**

### **WILL BECOME**

**\$25**

### **ON JULY 1, 1992**

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

## **Epsilon Beta Chapter Arizona State University Hosts HKN National President**

**by Craig R. Smith**



The Fall 1991 initiates of the Epsilon Beta Chapter of Eta Kappa Nu at Arizona State University were honored by the attendance of a number of distinguished guests at the initiation ceremony, held on November 15, 1991 in Phoenix. Mr. James A. D'Arcy, P.E., National President of HKN, spoke on current national HKN activities and awards, including the Outstanding Young Electrical Engineer Award. The Epsilon Beta chapter was pleased that a former chapter president, Arya Behzad, who was also in attendance, was a runner-up in the 1991 Alton B. Zerby Outstanding EE Student Award Program. President D'Arcy also encouraged the initiates to remain active members and to participate in alumni chapters after graduation.

The president of ASU, Dr. Lattie Coor, also spoke at the initiation. He discarded a prepared speech and instead expounded on each point of the HKN Honor Code. He pointed out that education and excellence are lifetime goals that require lifelong effort and urged initiates to not be satisfied with their current achievements.

Also present at the ceremony were Dr. David Ferry, Chairman of the Electrical Engineering Dept. at ASU, Dr. Charles Backus, Dean of the ASU College of Engineering, and Donald Sprik, Manager of Electronic Systems at Salt River Project, a local utility. One faculty and twenty-three student initiates were in attendance, none of whom will forget the memorable event.

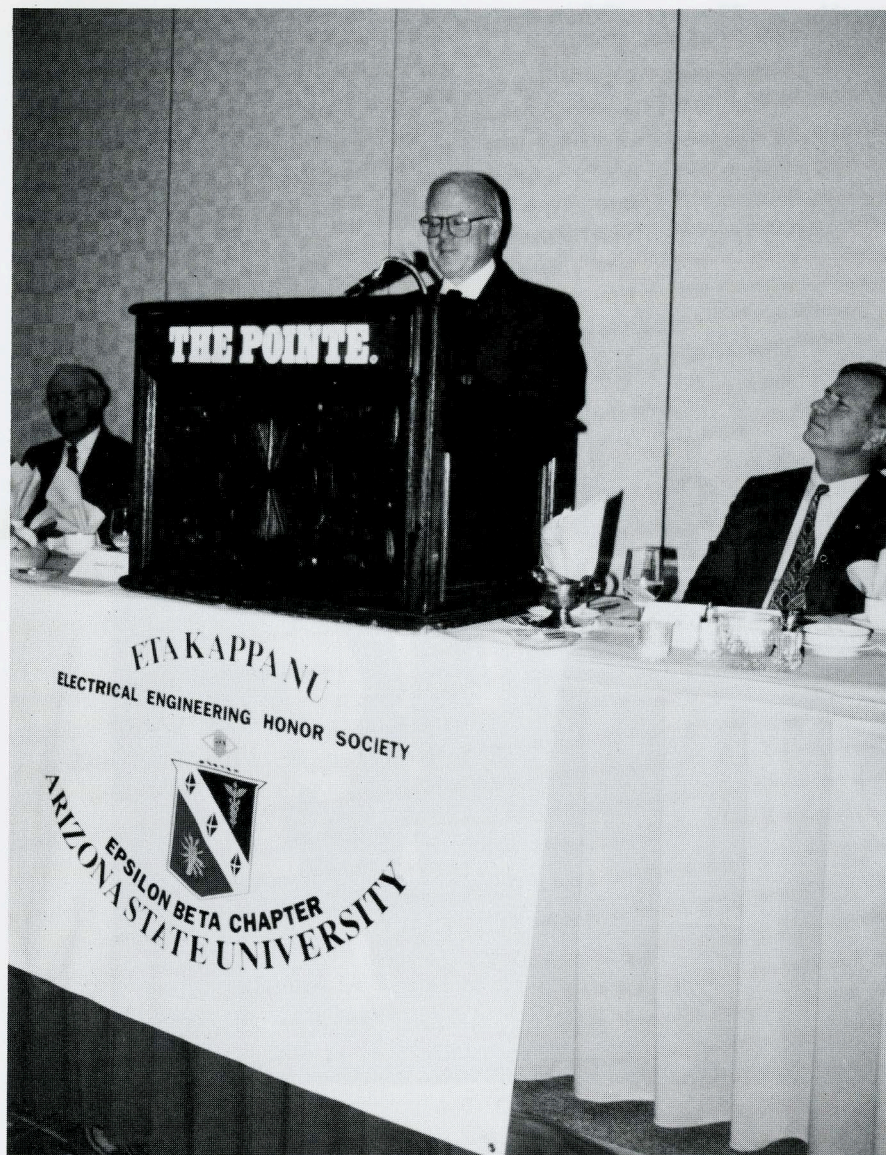
The following is a transcript of the speech given by President D'Arcy:

**Introduction.** "I would like to thank you for the invitation to be here with you for your initiation ceremony. I am very happy to be here. I had an opportunity to see your campus this afternoon, and I must say that I was quite impressed.

Also, I would like to congratulate the new members of Eta Kappa Nu. You were invited to join because of your attainments here at Arizona State University. Now, having been elected a member of HKN, you will always be a member. But this membership brings with it a responsibility.

I would like to tell you about this responsibility as I continue my talk. I would also like to tell you about some HKN activities following graduation.





HKN National President James A. D'Arcy at Podium.

tion and how some of our activities encourage fulfillment of this responsibility. I will conclude by leaving you with some recommendations which you may wish to consider.

**Responsibilities of an HKN Member.** As you know, the HKN Preamble includes the statement '...to mark in an outstanding manner those who, as students of EE, have conferred honor on their Alma Mater by distinguished scholarship, activities, leadership and exemplary character...' And this evening you were given the charge: Do not make the false assumption that the world owes you a living; on the contrary,

by virtue of your superior talents and extensive training, you owe it to your fellow-men to aid and assist them whenever they need something that is within your power to give. In this, we allude to our responsibility.

Through our education we have learned the science of Electrical Engineering, and we have further developed our ability to think logically. This education enables us to excel not only in our chosen profession but in other areas of endeavor which are beneficial to society. I'm not advocating that you change fields; I'm suggesting that you use your talents for the benefit of society as you perceive the need. There are

many opportunities to apply your talents to society, such as:

- Community, Civic and Church involvement in such activities as building committees;
- Government committees involving hi-tech policy, advice on capital improvements, school boards; and
- Professional Society Activities.

One final example which is somewhat dramatic, involves a friend of mine who matriculated in Law School a year after his graduation as an Electrical Engineer. He is now an Attorney with Community Legal Services in New Jersey and is thoroughly enjoying the work. He originally intended to become a Patent Attorney, but a temporary need in his community diverted him. Will he ever continue toward Patent or Corporate Law??? I doubt it.

**HKN Activities After Graduation.** Now, I would like to tell you about Eta Kappa Nu activities after graduation. I realize that you are more concerned at present with finishing your undergraduate education, finding a job, and perhaps matriculating in graduate school. But eventually we hope that you may have the opportunity to participate in an HKN activity.

As a starter, may I suggest that you renew your BRIDGE Magazine subscription after it expires in two years. Perhaps, more importantly, you should send a change of address to HKN headquarters when you leave school.

In HKN, we have several active alumni chapters, including Philadelphia, Los Angeles, Lone Star in Austin, Texas, and the AEP Chapter in Columbus, Ohio. The members of these chapters are those HKN members who are graduates. Each alumni chapter is responsible for a major HKN activity.

You are probably familiar with several of the activities since they are related to undergraduate life. So I will just mention those activities briefly:

- **The Outstanding EE Student Award** is managed by the Los Angeles Chapter. As you know, your previous Chapter President, Arya Behzad, received Hon-

orable Mention last year. I had the opportunity of meeting him in Anaheim in July when he received his award. The winner was Geoffrey Burr, State University of New York at Buffalo.

- **The Outstanding EE Junior Award** is coordinated by the Lone Star Chapter in Texas. The most recent winner has just been announced and is: Tracey Wallen, Colorado State University.
- **The Outstanding Electrical Engineer Professor Award** is handled by the Philadelphia Chapter. The most recent winner, is Professor Moshe Kam of Drexel University.

- **The Outstanding Chapter Award** is coordinated by an HKN volunteer who was a member of the former New York Chapter. Purdue University is the most recent winner.

- **The Outstanding Young Electrical Engineer (OYEE) Award** is managed by the AEP Chapter. This is the award through which HKN recognizes outstanding young electrical engineers. The award was founded by the New York Chapter in 1935, but over the years it has become more of a national activity. The purpose of the OYEE Award is to 'emphasize among EE's that their service to mankind is manifested not only by achievements in purely technical pursuits but in a variety of other ways. It holds that an education based upon the acquisition of technical knowledge and the development of logical methods of thinking should fit the engineer to achieve substantial success in many lines of endeavor.'

This award has been given annually for more than 50 years, since 1936. The criteria for the award requires winners to be under 35 years in age, less than 10 years from B.S. degree, and to hold an E.E. Degree from an accredited U.S. University. I am a member of the OYEE Award Committee. We completed the initial screening of candidates in

October and a winner was recently selected by the Jury of Award. On April 27, 1992, the winners will be honored at a dinner in New Brunswick, N.J. Examples of past winners include:

- 1937 Winner; Guy Suits formerly V.P. of Research for GE
- 1958 Winner; Malcolm Currie, CEO of Hughes
- 1968 Winner; George Heilmeier. Now President of Bellcore, formerly Senior Vice President of Texas Instrument.

Simon Ramo was 1941 Honorable Mention when he was a GE Electrical Engineer. He later helped to found TRW (The "R"). The 1991 Winner was Cecelia Jankowski of Grumman Aerospace.

The most recent academic winner is 1989 Honorable Mention Carl Nett, an Electrical Engineering Professor at Georgia Institute of Technology.

Another of our activities is the Management and Guidance of HKN. As you know, each year our chapters elect the Officers and Directors of HKN. In fact, you should receive the annual ballot shortly (November 1991) if you have not already received it, and we hope you will vote and return the ballot promptly. There are four directors of HKN, one from each region of the U.S. Candidates for the office of Director are nominated by the HKN Board from among the faculty advisors for student Chapters as well as those graduate HKN members in industry who have been notably participating in Alumni Chapters and HKN Committees. For example, I have been a member of the OYEE Award Committee since 1974, served as Chairman from 1979-1985, and served as an HKN Director from 1983-1985.

The President and Vice President are selected for nomination from among past Directors of HKN. The BOARD strives to achieve a mix of university and industry professionals. Currently, our other officers and directors are:

- Vice President: Ms. Laureen Parker, Motorola, Austin, TX;

- Executive Secretary: Dr. Robert Betten, University of Missouri-Rolla;
- Eastern Director: Dr. John Spare, Philadelphia Electric Co.
- East Central Director: Dr. B. J. Ball, Mississippi State University;
- West Central Director: Dr. David Stephenson, Iowa State University;
- Western Director: Dr. Bruce Johnson, University of Nevada, Reno.

While I am on the subject of ballots from National Headquarters, we plan to send you a special ballot in March of 1992 to ask you to vote on a revision of our Constitution and Statutes. This is the first major change since 1980. The purpose of the changes is to: modernize the wording; streamline our operation and prepare us for the 21st century. We hope that you will vote to approve the change and return your ballot promptly.

**Conclusion.** I would like to conclude this talk with some recommendations, as I promised. I hope you will find them useful.

- **Continue Your Education:** Matriculate first in an MSEE program or equivalent.
- **Be Flexible:** In your chosen career, try to accept various assignments enthusiastically regardless of what you think of them—and try to make the assignment beneficial to you and your company.
- **Try To Remain Active In HKN:** If you are not near an Alumni Chapter, you could consider nominating candidates for National Awards. Of course, if you become an EE teacher it would be easy to be involved in the student chapter.
- **Use Your Talents For The Good Of Society:** Civic, Church, Education. You'll know when and how.

Thank you for listening and for this opportunity to be with you. Arizona State is an excellent school and I will maintain fond memories of this visit for a long, long time."



# OUTSTANDING YOUNG EE AWARD

by Michael R. Hajny, OYEE Award Committee



**CONSTANCE CHANG-HASNAIN**

Constance J. Chang-Hasnain is the Outstanding Young Electrical Engineer of 1991. Her award was presented at the 56th Anniversary Eta Kappa Nu Banquet in New Brunswick, New Jersey on Monday, April 27, 1992.

At the same ceremony Francis P. Gaffney, Hung T. Le, and Bradley Rubin were awarded Honorable Men-

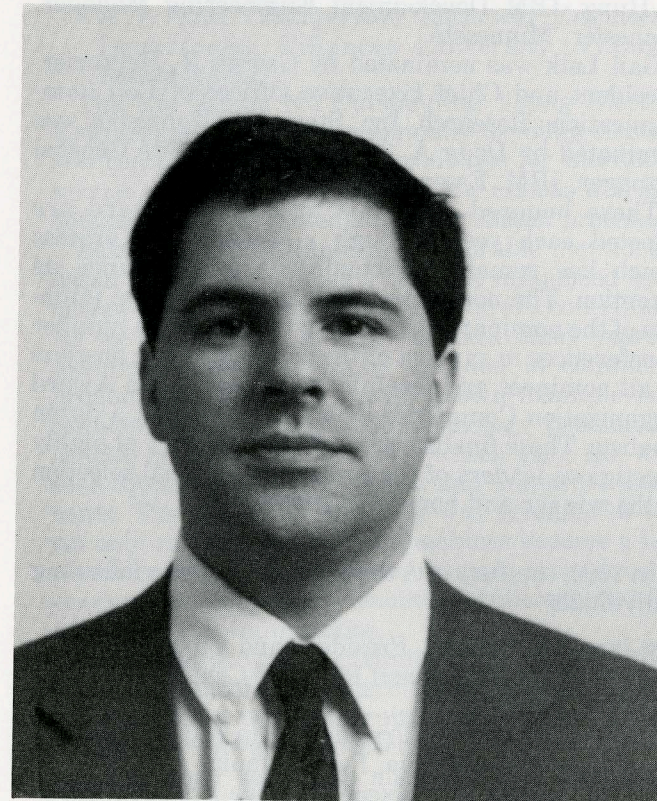
tions for 1991.

Constance Chang-Hasnain is a Member of the Technical Staff, Applied Research Area, Bell Communications Research, Inc. She is named the Outstanding Young Electrical Engineer for 1991 by virtue of her notable contributions to electro-optics in the area of monolithic semiconductor laser arrays; and for her

leadership in professional societies.

Since joining Bellcore in 1987, Constance's research has been centered on investigating two-dimensional arrays of vertical cavity surface emitting lasers (VCSELs) and high power visible lasers based on novel material structures. Her work on VCSELs has resulted in the first demonstration of discrete and continuous wavelength tuning in these lasers using a novel 3-mirror, 2-electrode device configuration. More recently she has demonstrated a two-dimensional VCSEL array containing 140 lasers each with a unique wavelength. This invention represents a source for wavelength division multiplexing (WDM) applications providing an approach to monolithic sources capable of extremely high data transmission rates. For example, with bits coded by wavelength, even with lasers operating at modest individual bitrates, overall throughput can exceed Terabit rates.

In her professional societies, Constance has submitted numerous technical papers; she is an Associate Editor of Circuits and Devices Magazine; she is presenter, organizer and session chairperson at numerous conferences; and she has participated in the National Science Foundation Panel charged with investigating methods to increase the representation of woman recipients of NSF grants. She was also one of eight United States members participating in the First Joint Soviet-American Workshop on the Physics of Semiconductor Lasers - 1991.



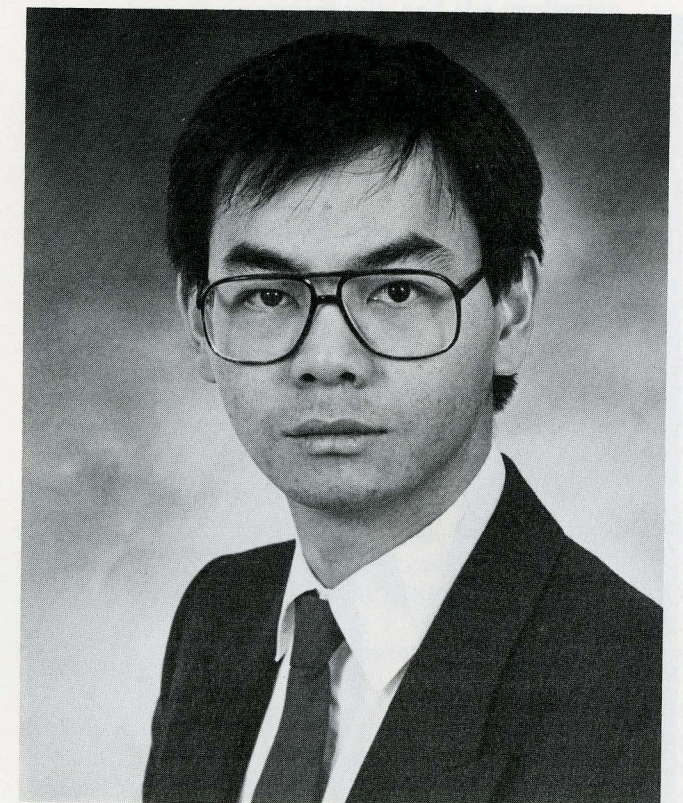
**Francis P. Gaffney**  
**HONORABLE MENTION**

Francis P. Gaffney is a Senior Engineer in the Electrical Engineering and Stations Operations Department of the Boston Edison Company, Boston, Massachusetts. He is named Honorable Mention for 1991 by virtue of his notable contributions to electric system protection philosophy, and power pooling; and, for his dedication to community service.

Francis has made significant contributions to the application of system protection relaying at the Boston Edison Company. He has identified and introduced new techniques of applied relaying, he has focused attention and helped standardize within the company the philosophy of relaying, and he has helped management identify significant technological trends in the industry.

Francis is active in church and sports events for youth. He teaches at both Northeastern University and within the Boston Edison Company. He is active in the Boston Chapter of the IEEE Power Engineering Society, and was Secretary of the 1990 International Joint Power Conference. He is an avid reader, and he is a member of both Eta Kappa Nu and Tau Beta Pi.

Hung T. Le is a member of the Technical Staff of the IBM Manassas Laboratory, Manassas, Virginia. He is named Honorable Mention for 1991 by virtue of his broadly applicable contributions to signal processing research; and, for his cultural achievements and his community activities.



**Hung T. Le**  
**HONORABLE MENTION**



Hung developed a theoretical framework using methods of functional analysis, which allows one to study the whole class of transient signal estimation problems from a unified point of view. The generalized nature of the resulting approach has lead to its wide applicability in areas such as biomedical engineering, control theory, seismic data analysis, and under water acoustics.

Hung is actively involved with the Boat People S.O.S. Committee in fund raising to support resettlement programs for the asylum seekers stranded in Southeast Asian camps. He helped initiate a news letter for the boat people, and is presently the Editor-in-Chief. Hung also participates as a group leader to teach Vietnamese culture to Vietnamese American Children.

Bradley S. Rubin is a Project Engineering Manager with IBM in Rochester, Minnesota. He is named Honorable Mention for 1991 by virtue of his notable contributions to the architecture and firmware integration of a multi-function input-output processor; and, for leadership in civic and professional activities.

Bradley has made contributions in VLSI design, VLSI design tools, processor performance modeling techniques, multi-processor architecture, system cost analysis, input-output processor architecture and operating system implementation, and strategies for future storage devices. Performance modeling contributions include developing a new deterministic modeling technique that allows engineers to quickly model proposed



**Bradley Rubin**  
**HONORABLE MENTION**

processor hardware structures and run these models with actual instruction traces—with much shorter model development time, much shorter model run time, and significantly improved accuracy.

In addition to teaching at universities in the United States, Bradley has taught computer engineering courses at universities in both South and Central America. He has been the Chairman of the Southern Minnesota Chapter of IEEE. He is also a member of the Eta Kappa Nu, Tau Beta Pi, and Alpha Lambda Delta honor societies.

Two other engineers were recognized as first time Finalists:

- Gail R. Lalk, Bell Communications Research, Inc. (Bellcore), Morristown, New Jersey and
- Steven W. Tomashot, IBM, Essex Junction, Vermont.

The award winners are honored for their contributions to electrical and computer engineering, and to society at large. These winners were brought to the attention of the Jury of Award by the persons who nominated the winners. Constance Chang-Hasnain was nominated by Robert F. Laheny, Division Manager, Electronic Science and Technology Research, Bell Communications Research, Inc.

Francis Gaffney was nominated by Stephen J. Sweeney, Chairman and Chief Executive Officer of the Boston Edison Company. Hung Le was nominated by W. Gianopulos, the Director of the IBM Manassas Laboratory. Bradley Rubin was nominated by Timothy C. Hung, IBM Development Engineering Manager, Rochester, Minnesota.

Gail Lalk was nominated by George H. Heilmeier, President and Chief Executive Officer of Bell Communications Research, Inc. Steven W. Tomashot was nominated by Doug A. Grose, Assistant Site General Manager, IBM, Essex Junction, Vermont.

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 of all nominees are carefully screened by the Award Organization Committee which selects about a dozen finalists. These finalists are judged by a Jury of highly prestigious leaders of the profession for final selection of the winner and honorable mention(s).

In 1991, the Jury of Award consisted of the following individuals:

- James E. Carnes, President and Chief Operating Officer, David Sarnoff Research Center, Princeton, New Jersey.
- James A. D'Arcy, President, Eta Kappa Nu Association, Philadelphia, Pennsylvania.
- Paul Dragoumis, Executive Vice President, Potomac Electric Power Company, Washington, D.C.
- Stephen Kahne, Past Vice President, Technical Activities, IEEE, and Consulting Engineer, MITRE Corporation, McLean, Virginia.



**1991 Jury of Award**

**Standing, Left to Right: S. S. Rao; James A. D'Arcy; Stephen Kahne; Robert L. Norwood.**  
**Seated, Left to Right: James E. Carnes; Paul Dragoumis; Michael R. Hajny.**

- Robert L. Norwood, Deputy Director, Space Technology, Office of Aeronautics and Space Technology, National Aeronautics and Space Administration, Washington, D.C.
- S. S. Rao, Chairperson, Electrical Engineering Department, Villanova University, Villanova, Pennsylvania.

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. Another example is the area this year's winner works in: monolithic semiconductor laser arrays for communications.

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 not only by achievements in purely technical areas but also in a variety of other ways as well. Eta Kappa Nu holds that an education based upon the acquisition of techni-

cal 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.

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 U.S. college or university; or by other individuals or groups, who in the opinion of the Award Organization Committee, are properly qualified to make nominations.

The nominations for the 1992 awards should be submitted to the Chairman of the Award Organization Committee, or to the Executive Secretary of Eta Kappa Nu, by August 1, 1992. 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, 1992 from a specified baccalaureate program, and
- will not have reached his or her 35th birthday as of May 1, 1992.

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 direc-



tion of research and development; (2) the candidate's service to community, state, or nation, 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, Jemtec Electronics Co. (Chairman); Ralph J. Preiss, IBM Corporation (Vice Chairman/Secretary); Clarence A. Baldwin, Westinghouse Electric

Corporation; Robert A. Bartolini, SRI David Sarnoff Research Center; Donald Christiansen, IEEE Spectrum; James A. D'Arcy, General Electric Company; Larry Dwon, Consultant (formerly of American Electric Power Service Corporation); Irving Engelson, Technical Activities, The Institute of Electrical and Electronics Engineers, Inc.; Anthony F. Gabrielle, Gulf State Utilities; Quayne Gennaro, Design by Hilton, Inc.; Willard B. Groth, Telecommunications International Consultants Inc.; James D. Hebson, Jr., Public Service Electric and Gas Company; William E. Murray, Douglas Aircraft Company; Berthold Sheffield, RCA Corporation (retired); Joseph J. Strano, New Jersey Institute of Technology; and Lawrence D. Wechsler, General Electric Company (retired).

# CHAPTER ACTIVITIES

## Beta Chapter is National Winner (Others are Close)

by Alan Lefkow

High quality annual reports reflecting pride in chapter accomplishments marked the Outstanding Chapter-Activities Award recipients for 1990-91. Their chapter reports took advantage of today's sophisticated desktop publishing techniques to produce reports that did full justice to their matching outstanding program of activities. Each report was well-written and looked as good as it read. This year's competition clearly marked a new plateau of achievement in Eta Kappa Nu's college Chapter-Activities Award program.

Beta Chapter, Purdue University, was voted National Winner for its very impressive level of chapter activities. Beta again demonstrated this chapter's dedication and commitment to their fellow students, department, school, and their community. Their report did justice to their high level of accomplishments by being well written, immaculately organized and produced, and photocopied in color to convey the impact of the many colorful photos

contained in the report.

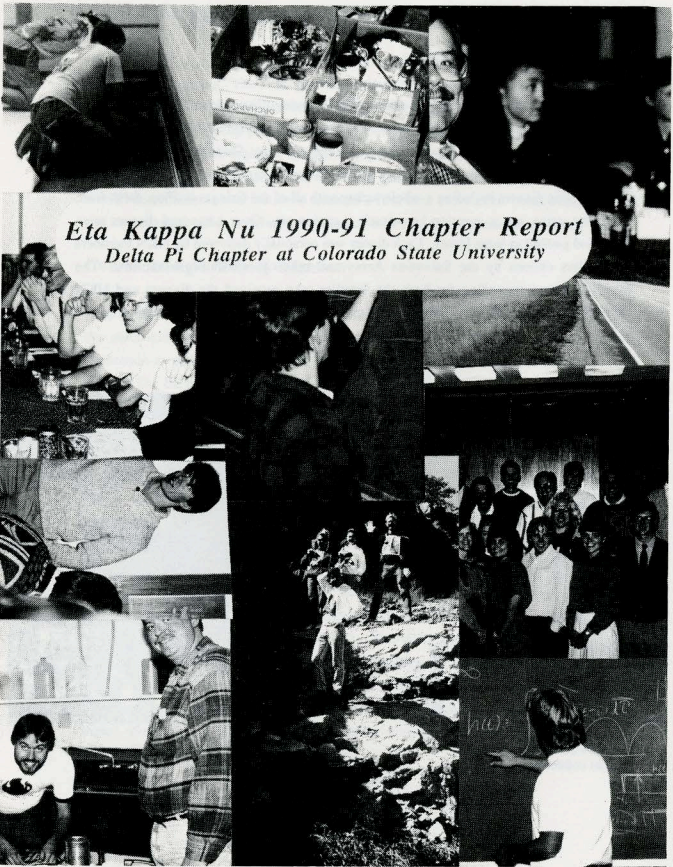
But Beta Chapter was not alone among outstanding chapters. Three Honorable Mention winners matched Beta Chapter's report quality, differing only in their somewhat lower level of chapter activities. Gamma Mu, Texas A & M University, and Epsilon Beta, Arizona State University, had immaculate reports that were also reproduced in color. Beta Epsilon, University of Michigan, had an unusual but very well-done report that was laid out as a newspaper-magazine called the "Beta Epsilon Times." The report was divided into classic newspaper sections of "News," "Sports," "Business Digest," "Society and Entertainment," and "Opinion and Future" that covered all of the chapter's activities for the year. And the report was in full color, including photos and typefonts.

In addition to these four winners, three chapters that typified the spirit of Eta Kappa Nu were awarded Certificates of Merit for their meri-

torious programs. Two of these chapters, Delta Omega, University of Hawaii at Manoa, and Delta Pi, Colorado State University, had well-produced reports with color photos, similar to the other winning chapters. The third winner, Zeta Pi, State University of New York at Buffalo, submitted its quality report as a professionally bound, hardcover book.

All in all, these seven winners have demonstrated that activities worth doing are worth reporting on. Annual reports are generated by the college chapters at the end of the academic year, and are submitted to National in the summer or fall. The Award committee reviews the reports in the winter and announces the winners in the spring. The National and Honorable Mention winners receive award plaques engraved in color, and the Certificate of Merit winners receive their certificate laminated in Walnut.

Delta Pi's meritorious report is reproduced here. BRIDGE will feature others in August and November.



### President's Letter

September 15 1991

For the past academic year, the HKN Delta Pi Chapter has set out to accomplish a most ambitious goal: To be the best and most involved HKN chapter that Colorado State University has ever seen. In my opinion, we've succeeded in every regard. We've sustained and improved upon all of the traditional Delta Pi projects. The Tuesday night tutoring sessions were very helpful for struggling engineering students. The Thanksgiving food drive, coordinated by Jim Ott was a smashing success. We thanked Jim for his efforts by presenting him with a trophy which had a turkey on top. The 42 new initiates that we brought into HKN were very helpful with both the old and new projects. Last spring we became a part of the Colorado Adopt a Highway program. Initial foundations were set for the Discovery Center project which will educate grade school children about electrical power. In addition, the electrical engineering lounge was completely remodeled by both HKN and IEEE student members.

As I pass the responsibility on to next years officers, I hope that the precedence of involvement set within the last year will not just be maintained, but beaten!

Sincerely,  
  
Kevin L. Colburn  
President of Delta Pi

### Delta Pi Members (Fall 1990-Spring 1991)

#### Officers

President .....	Kevin Colburn
Vice President.....	Ray Gasser
Corresponding Secretary.....	Susan Casseday
Recording Secretary.....	Matt Nieberger
Engineering Legislator Representative.....	Jeff Brown
Treasurer.....	Chad McCammon
Bridge Officer.....	Min-Fon Chang

#### Current Active Members

Beardsley, Rodney	Schwols, Kieth
Berry, Dave	Smika, Tava
deGraaf, Jean	Stricker, Scott
Doner, Deanna	Trujillo, Frank
Dubey, Abhay	Werahera, Priya
Ott, Jim	Wernsman, Ben
Richardson, Ken	

#### Fall 1991 Initiates

Caldwell, Alan	Pearman, Ty
Cassidy, Suzanne	Shaw, Dennis
Edwards, Joel	Short, Galen
Eimen, Tony	Snyder, Rick
Gibbs, Douglas	Sprohge, Jan
Herrman, Brian	Stoltz, Eric
Hevelone, Jason	Teague, Kyle
Justice, Jeffrey	Wallen, Tracey
Kerschner, Veronica	Warner, Christie
Leyba Cone, Gina	Watkins, Mark
Littlefield, Eric	Watson, Matthew
Lurkins, Joel	Whitley, Mike
Mitze, Michael	Wood, Dave
Olson, David	Wright, Jodi

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Spring 1991 Initiates

Al-Assadi, Waleed  
Barth, Bill  
Beyette, Fred  
Chang, Su  
Donahue, Mike  
Gonzalez, Julio  
Jackson, Mark

Martin, Ken  
Parker, Jim  
Prasad, Manoj  
Savage, Scott  
Scull, Tim  
Unnikrishnan, R.  
Zou, Zhiyan

Faculty Advisor

Dr. L. J. (James) Faber



Spring 1991 HKN initiates

4

Adopt a Highway program

On a cool January Sunday morning, the Delta Pi members, along with their faithful advisor, James Faber, and his wife, slipped on their cotton gloves and reflective orange vests supplied by the Colorado Highway Department. This day was as good as any to clean up a highway. For three long miles, the winding Highway 287 stood in front of HKNs as a waste land of garbage. Two teams were formed: one for the right side and the other for the left side of the highway. Divide and conquer! For most of the day, the brave members picked up the simple cigarette butt to items which are best left unsaid. Close to a hundred trash bags filled with litter were deposited along Highway 287 for the highway department to collect. To commemorate our accomplishment, a sign of appreciation was posted by the Colorado Highway Department which states "Adopt a Highway Litter Control Next 3 Miles: HKN CSU EE Honor Society". Although the trash pickup was grueling, it brought out the team spirit of HKN. We came, we saw, we picked some trash!



Above: Ken carefully lancing a cigarette

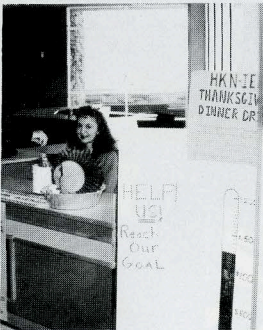


The unofficial HKN trash team

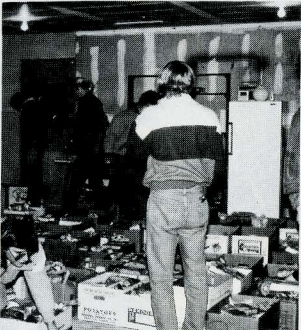
HKN Community Involvement

Thanksgiving Dinner Drive

The Delta Pi Chapter organized the annual Thanksgiving dinner drive for the Ft. Collins city and surrounding Northern Colorado area. For several weeks, HKN members manned a collection booth in the Colorado State University's Lory Student Center, collecting donations from students and faculty. The donations were used to buy complete Thanksgiving dinners including a whole turkey with all of the fixings: stuffing, fresh fruit, cranberry sauce, not to mention homemade pumpkin pie. Over a hundred dinners were made and packed in large boxes. Each dinner was personally delivered by HKN members to families chosen by the Salvation Army and other goodwill organizations. The experience was rewarding for both the families who received the dinners and HKN members who participated in delivering the goods the night before Thanksgiving.



Fellow HKN member Jodi Wright collecting donations



Making the turkey dinners the night before Thanksgiving

5

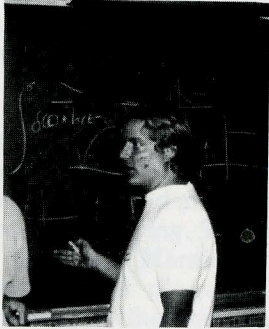
The Discovery Center

The volunteer run "Discovery Center" is often a child's first exposure into the exciting world of science. Numerous exhibits teach students of all ages concepts in physics, medicine, and the life sciences through an interactive "hands on experience" to tantalize the senses and stimulate the mind. Cooperating with the Public Service Company, the Delta Pi Chapter began to design a computer interface to one of the exhibits which demonstrate the conversion of human pedal power to electrical power via a stationary bike. This exhibit will attempt to visually relate power to something more identifiable to the average grade school children, such as light bulbs. The project is ongoing and should be completed the following academic year.

Academic and Career Enrichment

HKN Tutoring

Every Tuesday night of Fall and Spring semesters, two HKN members volunteer their expertise to tutor fellow electrical engineers in anything from microelectronics circuits to electromagnetic fields. Students who have been helped describe the tutoring sessions as "invaluable" in understanding course material. Instructors often gave the tutors an overview of the topics which are presently giving students the most difficulty in order to make the tutoring sessions most beneficial. For the HKN members who dedicated their valuable time, it gave them a chance to brush up on the previous courses and perhaps even learn something new.



Tuesday night tutoring

7

Engineering Field Trips

Each semester the Delta Pi chapter arranges engineering field trips for the department of electrical engineering. The field trips varied from the smallest engineering firms, such as Merlin Controls, a privately owned firm operating from a garage, to one of the largest computer manufacturing plants in Colorado, Hewlett-Packard in Ft. Collins. The field trips provided students exposure to engineering from a perspective other than a textbook or lecture. Seeing the knowledge learned in the classroom applied in practical and "real-world" environments was for some students a first time experience. Many students used this unique opportunity to submit resumes and look into future career possibilities.

Course and Faculty Evaluation

Near the completion of each semester, HKN members pass out and collect evaluations for the electrical engineering department at Colorado State. The EE professors use the evaluation as constructive feedback from the students to improve upon the EE courses taught. The EE department uses the evaluations to determine the growth and progress of the faculty members and their teaching ability.

The HKN and IEEE Lounge Renovation

On the second floor of Colorado State University's electrical engineering wing, there is a room known affectionately as the HKN & IEEE Student Lounge. During the Fall of 1990, the lounge was in a state of disrepair. The walls were marked from years of neglect, the carpet was torn, and the study table was defaced with equations and old homework solutions. Something needed to be done! Over the winter break, an amazing transformation occurred due to the dedicated efforts of HKN and IEEE members. The lounge was given a much needed face lift. The walls were repainted, the carpet was replaced, a larger study table replaced the previous one, a large chalk board and a white dry marker board were added (at least now the students won't have an excuse to write on the tables), a microwave oven was purchased, and the reference manuals were updated. As hoped, more students began to use the lounge for studying or just relaxing.

8

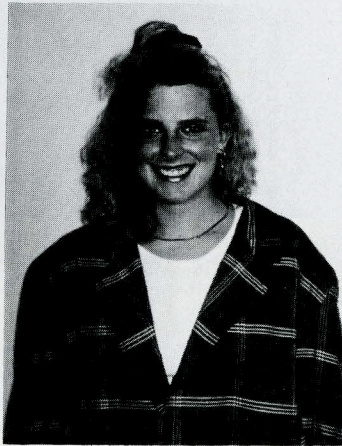
Tetris Competition and HP Calculator Accessory Give Away

During the annual Engineering Days event at Colorado State, the Delta Pi's provided mindless fun with the first annual HKN Tetris Competition. A dozen HP Vectra Computers were set up in the microelectronics lab. For 25 cents a game, people could play the game and have their scores entered into a drawing for calculator accessories donated by Hewlett-Packard.

Eta Kappa Nu Awards

Norman R. Carson Outstanding Junior Award, Tracey Wallen

Ms. Tracey Wallen was the recipient of the prestigious Norman R. Carson Outstanding Junior Award. She was selected from numerous HKN chapters across the nation on the basis of scholastic achievement, leadership, and service. Furthermore, in recognition of her accomplishments, she will be presented with an award certificate and five hundred dollars in cash. Good job Tracey!



Tracey Wallen, recipient of Norman R. Carson Outstanding Junior Award

10



Installing the new carpet in the lounge

Social Activities (i.e. Having Fun!)

On the lighter side, the Delta Pi's are not all work and no play. Numerous social activities were planned throughout the year to relieve the typical daily stresses of an engineering student (Test... What test?!). Near finals week of both Fall and Spring semesters, a pizza party allowed members to take their minds off of the impending exams and relax. In one instance after our summer trash pick up for the Adopt a Highway program, HKN members enjoyed a beach side picnic by Boyd Lake just south of Ft. Collins. Complimenting the food was a rented speed boat for water skiing, giving the usually thrills and spills for first time skiers. In short, one of the Delta Pi's goal was that members remember HKN as not just a dull academic club but as a close knit group which is both rewarding and fun.

Fund Raising Activities

The Pop Machine

The single most significant contribution to the Delta Pi bank account is the pop machine located in the HKN and IEEE lounge. The chilled pop is sold at the bargain rate of 35 cents per can. Believe it or not, there have been instances where student have walked halfway across campus to buy the pop. Apparently, news travels quickly. The number of cans sold in a single week is astounding. This requires dedicated members to constantly refill the machine, a task which is not trivial (Carrying twenty to thirty heavy cases of pop cans up three flights of stairs would give most people a workout!)

9

Delta Pi's Financial Report (1990-91)

<u>Beginning Balance</u>	<b>\$945.00</b>
<u>Income</u>	
Pop machine	\$1510.00
HKN and IEEE Thanksgiving Drive	\$1250.00
Engineering Days Tetris competition	<u>\$50.00</u>
<b>TOTAL</b>	<b>\$2810.00</b>
<u>Expenditures</u>	
Fall and Spring Pledge Invitational Meetings	\$90.00
Pizza parties and social activities	\$160.00
Renovation of student lounge	\$100.00
Thanksgiving Food Drive	\$1400.00
Induction Banquet (comedian)	\$75.00
Professor Awards	\$120.00
Outstanding members awards	\$60.00
Work gloves for Adopt a Highway	\$15.00
Photography	\$25.00
Other	<u>\$50.00</u>
<b>TOTAL</b>	<b>\$2095.00</b>
<u>Balance Carried Over</u>	<b>\$1660.00</b>

11



# Drifting Around the Kingdom

## Part Five

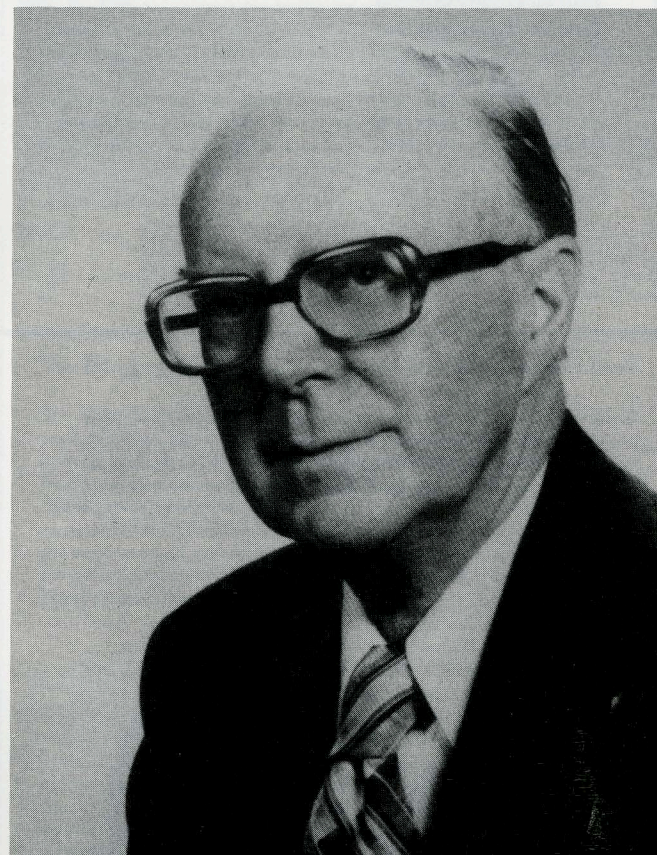
### Southampton

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.*

Any one who has never been to Southampton might be inclined to dismiss the place as very likely a dreary maritime town. That would be a big mistake. We found the city to be beautiful, prosperous and thriving. In the business district there were many new or refurbished stores and the waves of shoppers were cheerful and alert. Probably one of the reasons for the vigor of the town is the presence of a large and excellent university—the University of Southampton.

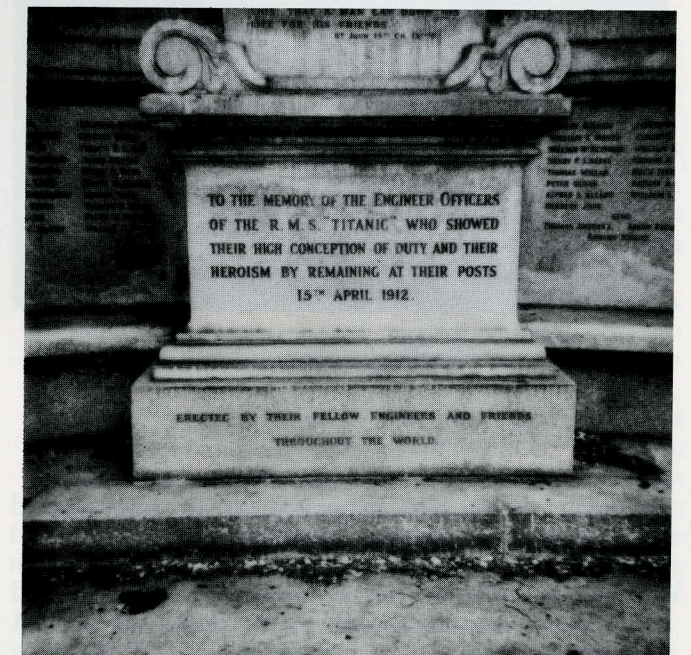
The city has many museums, galleries, theaters and points of interest. For me, one of them was more interesting than all the others. When I went to school here in America we often talked about Plymouth Rock and the landing of the Pilgrims from the Mayflower. Now that I think about it I find it very surprising that we never talked about where the Pilgrims sailed from. Well—they came from Southampton. There is a large and impressive memorial located at the spot where the Pilgrims boarded the Mayflower. A plaque tells about Pricilla Mullins, John Alden (Why don't you speak for yourself, John?) and all the gang. I was also surprised to learn that there were two ships instead of one. However, one of them—the Speedwell—became disabled and had to turn back after only one day at sea. The Pilgrims walked down a sea ramp to board the Mayflower, and the ramp is still there. However, it does not now go down to the sea. The sea is something like a mile away. To get



Author, Paul Hudson

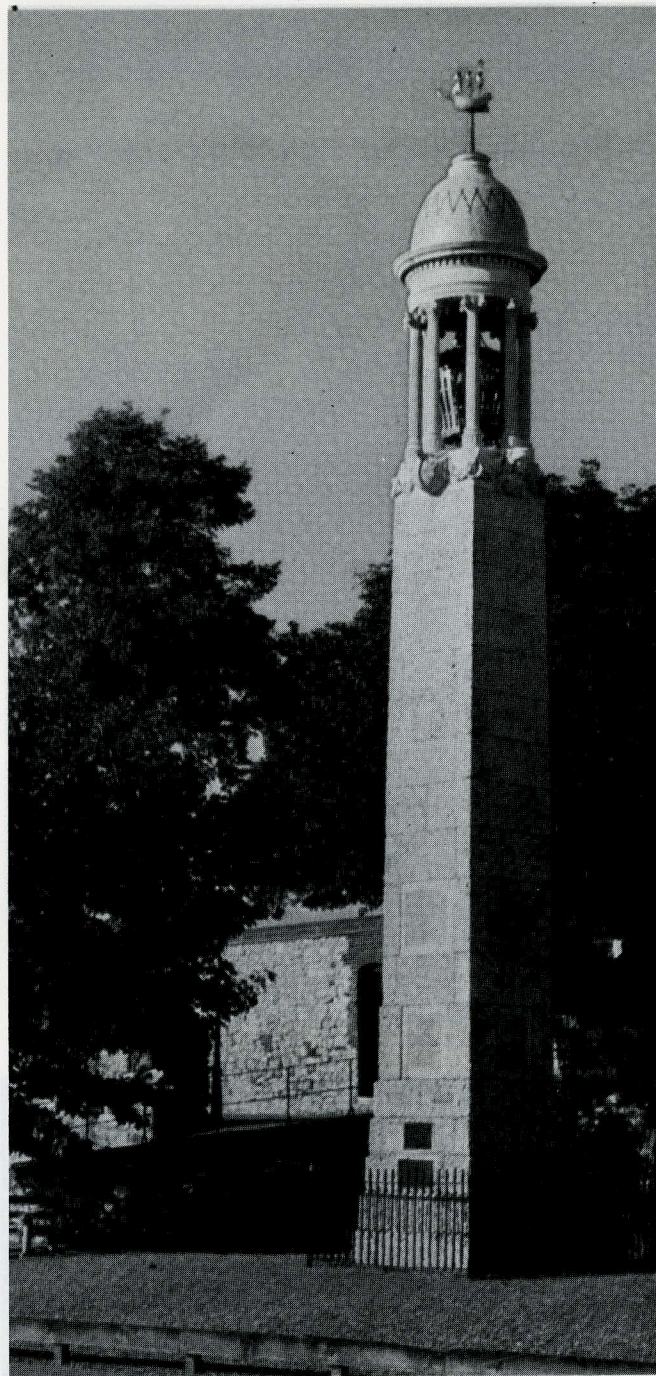
more land area for the town, Southampton dumped land fill into the ocean and moved it back.

Another memorial that I found interesting was in a city park. It is a memorial to the Engineers on the Titanic who stayed at their posts and lost their lives so that they could keep the engines running and the ship would have lights until the very moment that it went under the ocean. (see photo) The Titanic disas-



Photos: At top, Aerial View of Southampton; At bottom left, Monument to Engineers of the Titanic; At bottom right, Monument Inscription.





**Mayflower Memorial**

ter never should have happened. When they reached the area with the icebergs the ship speeded up instead of slowing down. It disregarded all warnings from other ships. Finally, when the berg was dead ahead the Captain tried to avoid it and in doing so, tore out the whole side of the ship. If the ship had hit the berg straight on it would not have sunk. The front would have been caved in but the water-tight doors could have been closed and the ship could have limped into port.

The hotel where we stayed—the Polygon—was astonishing. It is the only four-star hotel in town which means that it is supposed to have real class, and it did. However, it was only fifty years old and it looked like it was three hundred. I had never before seen a building so new look so old. The dining rooms served excellent food and the service was perfect but the rooms had no windows and I had the feeling that I was being served in the back room of a warehouse. But I have to be fair and admit that whatever the place lacked in physical plant, it more than made up for in cordiality and effort. When I registered at the desk I asked the clerk if there was a Coffee Shop where we could have tea. He answered, “No, we do not have a Coffee Shop but if you will find a comfortable place in the lobby we will serve you tea there.” I was really impressed by that. I doubt if there is a hotel anyplace in America that would do that. I remember several years ago when my daughter and I went into the main dining room of the New York Hilton at 11:00 PM for an after-theater supper and the waiter told us that if we did not want a full meal we should leave and go downstairs to the Coffee Shop. That was the last time I ever went to their dining room.

There are two major Cathedrals close to Southampton. We decided to spend some time at Salisbury. It can not compare with many other English Cathedrals such as Winchester or Saint Paul’s in historical significance, nor is it rich in tombs of Kings or national heros. However it is a very beautiful Cathedral and has the loveliest setting of any Cathedral in the country. I became interested in Salisbury a long time ago and in a rather back-handed way. A painting of the Cathedral, done by John Constable, hangs in the Metropolitan in New York, and I enjoyed it over the years. Then one day I visited the Frick Collection and found the painting there. I couldn’t believe it. The Metropolitan would never loan their paintings for anything except a special exhibit. When I got back home I wrote to the Metropolitan and to the Frick Collection asking them for a photographic print of the painting. When they sent the photos I discovered that there were two paintings done by Constable that are so identical that it is very difficult to tell them apart. I can not possibly imagine why an artist would paint two pictures almost exactly alike.

About eight miles north of the Cathedral is one of the most interesting places in England—Stonehenge. One of the things that makes it interesting is the fact that we know so little about it. It took over a thousand years to build and it did not have a masterplan, as evidenced by the fact that there was a lot of build-up and tear-down over the centuries. Only two things are certain—it was used as an open air Cathedral and as an astronomical observatory. There are many people buried there and this no doubt was related to its use as a Cathedral. It was begun in about 2,500 B.C.

When we arrived we were greeted by something we did not expect. It was the time of the Summer solstice and there were something like 10,000 people camped out in the valley beside the monument. They were not astronomers but the very dregs of the English nation, and perhaps some others as well. They



**Stonehenge**

did not know what the solstice was—they just knew it was the time to come there and loaf. They could get drinking water from the tourist center. They did not need any water for washing as they never did that. When a family with little children showed up the government took them in to London and gave them housing for a while.

Southampton has one large claim to fame—it is the port of registry for the Queen Elizabeth II. There were two previous Queens—the Queen Mary and the Queen Elizabeth I. Apparently there will be no more, as economics will not permit it. In order to stay in business, Cunard has purchased some ships that no longer could survive, and then rebuilt them. There is an interesting story about the Queen Mary that I presume is true because it is told by the Cunard people. When the ship was built Cunard intended to name it the Queen Victoria. Of course they had to get the permission of the King in office—King George. But Cunard made a blunder. Whey they went to the King they said, “We wish to name this ship for the greatest Queen that ever lived.” King George replied,

“I am delighted that you wish to name your ship for my wife.” So—the Queen Victoria became the Queen Mary. It is now parked in Long Beach, and used as a tourist attraction. The Queen Elizabeth I burned in foreign waters.

When we boarded the Queen Elizabeth II, I was a bit sad. I knew that I had visited England for the last time and also this voyage on the Queen would be my last. It was my sixth voyage and I had learned to love the ship. I stood on the boat deck and listened to the military band of the 16/5 Lancers play a concert for the departing passengers. Just as we slipped quietly away from the dock the band broke out into the lovely English song *Land of Hope and Glory*. It was a very sweet good-by and especially for people like me who would never return. I might have had a couple of tears, as I had learned to love England very dearly.

I could not go to sleep that first night on the ship. Awake in my bed I thought about the ship. I thought about the Chinese people who run the laundry down in the belly of the ship and how they never see the light of day. They have to wash something like 5,000 towels each day and about that many sheets and





Queen Elizabeth II

pillow cases. I do not know how many table cloths, napkins and other things. I don't see how they do it all. They are the only people on the ship who cook their own food and I suppose there are several reasons for that. I thought about the amount of fuel needed to push the ship across the ocean. One gallon of fuel pushes it 12 feet. Twelve feet goes into 3,000 miles a lot of times. Finally just as I was going to sleep I thought of something that shook me awake again. The water!!! The Queen buys drinking water in the ports, and purifies sea water for washing, etc. But the water in the stools in the bathrooms is raw sea water. I jumped up and went into the bathroom and shut the door without turning on the light. It

was completely dark. I then flushed the stool and what happened was what I thought might happen. For a brief moment the bowl of the stool flashed a bright green light with shooting stars and pinwheels all over. It was a real nice show. I flushed it again six or eight times and got the same result. The sea is full of plankton and it is phosphorescent when it is disturbed. I thought about the fact that plankton is about the lowest form of life and humans are supposed to be the highest. Yet people are destroying the earth with their over-population and plankton is trying to save it by stabilizing the sea life and, in turn, the land. I wouldn't want to make a guess as to which form of life the Lord loves best.



Dr. Moshe Kam, center, with, from left, Mr. Ed MacDonald, Dr. Nihat Bilgulyay, Dr. Eli Fromm, Mr. Robert Arehart, Dr. Y. T. Shah and Dr. Bruce Eisenstein.

## Moshe Kam Wins C. Holmes MacDonald Outstanding Teacher Award

Dr. Moshe Kam, Associate Professor at Drexel University is the Winner of the 1991 HKN C. Holmes MacDonald Outstanding Teaching Award.

It was a happy occasion that took me as Chairman of the HKN C. Holmes MacDonald Outstanding Teaching Award Program to the campus of my alma mater, Drexel University, on January 23, 1992. The occasion was very meaningful for two reasons. One was the dedication of an electrical engineering student lounge in memory of F. C. "Scotty" Powel, a much beloved professor who served many years at Drexel. In fact he was serving as assistant head of the Electrical Engineering Department when I attended Drexel after the war in the late 1940's. The other reason of course was to present the Outstanding Teaching Award to Dr. Kam.

The 1991 Outstanding Young Electrical Engineering Professor was chosen from among all of the nation's Colleges and Universities who submitted candidate names and biographies for consideration in the 1991 program.

In making the presentation, I took the opportunity to inform those students and faculty gathered to honor Dr. Kam, that the Outstanding Teaching Award is one of five awards presented annually by HKN. This particular award was initiated in 1972 and is administered by the HKN Philadelphia Alumni Chapter.

One of those in Philadelphia who was instrumental in starting the award and very interested in honoring young electrical engineering professors was C. Holmes MacDonald. Holmes was not only a member of the Philadelphia Alumni Chapter, but he had served on the HKN National Board of Directors.

Shortly after Holmes' death in 1974, the Outstanding Teaching Award took his name to honor his great love and respect for the teaching profession. Edward H. MacDonald, son of Holmes, attended the award presentation along with other members of the Philadelphia Alumni Chapter.

The Outstanding Teaching Award is intended to recognize the central and crucial role of college pro-





**Mr. Robert Arehart Presents Award Certificate to Dr. Moshe Kam.**

fessors in training and motivating future electrical engineers. The award program attempts to identify and give national recognition to electrical engineering professors who have demonstrated, early in their careers, special dedication and creativity in their teaching responsibilities. Thus it is, in part, a counterbalance to the significant pressure for research and publication performance on young professors, and a re-affirmation of the basic and essential need of excellence in teaching.

Interestingly enough, this is the second professor to be so honored at Drexel. In 1975 the young man chosen for the award was Dr. Bruce Eisenstein. Today, Dr. Eisenstein is Head of the Department of Electrical and Computer Engineering at Drexel.

After conveying this brief history of the award, I was pleased to present Dr. Kam with a pewter plate that was inscribed with his name and the name and date of the award. After presenting the plate, I read the inscription on the certificate that accompanies the award, and as Dr. Kam accepted the certificate, a long and well deserved period of resounding applause ensued.

Dr. Kam very humbly accepted the award and then responded with a brief treatise on his philosophy of education and the wonderful capability of dispensing

knowledge in a free society.

Those present from the Drexel Administration to honor Dr. Kam were: Dr. Y. T. Shah, Dean of the College of Engineering; Dr. Nihat Bilgulyay, Associate Dean of the College of Engineering; Dr. Eli Fromm, Vice Provost for Research and Dr. Bruce Eisenstein, Head of the Department of Electrical and Computer Engineering.

The following remarks provided by Dr. Y. T. Shah, Dean of Engineering, and Dr. Nihat Bilgulyay, Associate Dean of Engineering, both at Drexel, speak to Dr. Kam's outstanding accomplishments.

"Dr. Kam is truly an exceptional individual. In just a few short years he has become one of the most productive and key members of the Electrical and Computer Engineering faculty at Drexel University. He has already compiled an impressive record of accomplishments, and his high pace of development has all the indications of a person well on his way to becoming a nationally prominent educator and researcher. This past year Dr. Kam was selected as a Presidential Young Investigator (PYI) for 1990, which is one of the most prestigious and selective awards administered by the National Science Foundation. During the same year he was also promoted to Associate Professor and Assistant Department Head for Development in the Electrical and Computer Engineering Department. He is an exemplary educator with a sense of dedication, concern and care for students that is rarely seen in the high pressure research environment of today's competitive universities. He is an equally accomplished researcher and has established himself as a major contributor to the theory in an emerging discipline of neural networks. He sees his research as a means of enhancing the education of his students. There is no doubt in the minds of his students and colleagues that his primary professional goal is to be the best possible teacher. The intensity of his dedication and commitment to high quality education is evident in every facet of his work.

"Since joining the faculty Dr. Kam has won all three IEEE and Eta Kappa Nu Teaching Awards presented at the Department, decided by secret ballots of the undergraduate students. He has revived a poorly attended senior sequence in optimization and synthesis, which has since become one of the most popular classes, requiring the opening of a second section. In addition he is a very active participant in the University Honors Program Task Force and in the Electrical and Computer Engineering Department's Undergraduate Curriculum Committee. In the graduate program he has introduced a much-needed sequence on Information Theory and Coding, and several new modern courses. In all his classes, including the undergraduate sequences, he emphasizes the importance of access to the scientific research, and updates the course syllabi to include recent relevant results. His efforts in this regard are appreciated by students and have been cited several times as exemplary in the student paper, the *Triangle*. In addition, many requests are received from industry and Government agencies (e.g. Naval Air Development Center) to have Dr. Kam as a guest lecturer and instructor. Dr. Kam is also very active in

advising graduate students; he has advised 8 graduate students to completion (6 MSEE and 2 Ph.D.), and is currently advising 10 graduate students of which 5 are Ph.D. students.

"In a recent report from students, Dr. Kam was said to have tremendous enthusiasm and energy in his classroom, to genuinely care about students, to expect the best of himself and his students, and to have great dedication to his work and that of his students. These comments came directly from undergraduate and graduate students and illustrate his outstanding teaching qualities. Students ranking such qualities as lecture preparation and presentation, knowledge of subject matter, ability to motivate, availability outside the classroom, and interest in guidance and advice, ranked him as outstanding and one of the best. No greater recognition of such qualities can be found than to receive them from the students themselves. While maintaining such high teaching and educational standards, Dr. Kam has conducted an extensive research program and demonstrated extensive leadership in his profession. He has organized numerous sessions at technical conferences as well as workshops and tutorials in the developing area of controls and neural networks. He has received national and international recognition for his expertise; being asked to serve as a member of the editorial board of one international journal, a reviewer for more than a half dozen well respected refereed journals, Chairman of local Philadelphia Section chapters of two IEEE Societies (Circuits and Systems Society and the Control Systems Society), and invited to give numerous public addresses.

"Since joining the Electrical and Computer Engineering Faculty in October 1986, he has published 6 journal papers (with an additional 6 papers currently under review), among them, his seminal paper on Pattern Retrieval with Threshold Elements (IEEE *Transactions on Circuits and Systems*, March 1989)-a major contribution to the analytical foundations of neural network theory. He has authored the first paper on adaptive data fusion; has provided the first analytic solution to the convergence assessment problem in binary neural networks for structured codes (previously, only statistical averages were studied); and has made original and significant contributions to robot control and target tracking. In addition, he has authored 40 conference papers. Although he is only at the beginning of his career, he has already been cited in many publications and in a book on target tracking, chaired and moderated numerous scientific and public events, and received invitations to conferences. The originality and significance of his work, and the clarity of his presentations have made him a highly sought after speaker in professional conferences and consequently enhanced the reputation and status of Drexel. Some typical examples are his recent tutorials in major conferences on Controls, and the well attended presentations at the IEEE Boston and Philadelphia section meetings. Dr. Kam has also been active and successful in obtaining research support from several agencies, including the National Science Foundation, NASA, Naval Air Development Center, Rome Air Develop-

ment Center and the Naval Surface Warfare Center.

"Dr. Kam is a sophisticated and multi-faceted individual, but, probably, his most valuable attribute is his ability to achieve excellence in both teaching and research and to fuse the two to enhance the education process. This is truly a difficult accomplishment for which most faculty members strive, but too few succeed so extensively. He has become a leading and recognized authority in his research area of neural networks while receiving teaching awards from students in undergraduate courses. He has also served his Department and University on key committees to improve the quality of teaching and research, as well as in professional societies by actively organizing and participating in seminars and conferences. His accomplishments are impressive and have been widely recognized by his colleagues, students and objective reviewers. His diversity, competence and numerous accomplishments have been instrumental in his appointment as the Chairman of the Electrical and Computer Engineering Recruiting Committee. In this capacity, he serves the Department in a very crucial role: determining the areas where new faculty are most needed and accordingly recruiting the appropriate candidates. Such an important task would ordinarily be assigned to a more senior faculty member, but Dr. Kam has proven himself worthy of such high-level expectations. In addition to his professional accomplishments, Dr. Kam has an intellectual and artistic side to his personality which is noteworthy but often goes unnoticed since he attracts so much attention and praise in his academic and professional endeavors. He enjoys literature and poetry, and is currently translating Walt Whitman's *Leaves of Grass* into Hebrew ("Aley Esev"). He is a member of the *Arbel Chorale* (second Bass) and serves as the Treasurer. He is also a member of Amnesty International Natural Resource Defense Council, Chesapeake Bay Foundation, and the Committee on Campus projects.

"Finally, it is important to note that Dr. Kam complements his professional and artistic accomplishments with a fine personality. He is a confident individual who takes pride in his work, yet has a modest and very pleasant personality. He is reliable and always willing to help his students and colleagues.

"It is believed that Dr. Kam's recent accomplishments are only the beginning of an outstanding career in education. Given his vast talents, motivation, productivity, and extreme dedication to his profession, it is expected that he will continue to excel in teaching and research and assume leadership roles both within the Department and nationally. Dr. Kam is an outstanding young Electrical Engineering Professor who typifies excellence in teaching and research. He has the ability to motivate students and colleagues alike to attain their maximum potential.

"Dr. Kam truly exhibits all qualities of an outstanding young engineering educator: respect and recognition from students (undergraduate and graduate alike), an inspiration to his students, a well recognized researcher, a very active contributor, and a dynamic leader of his profession. He is an exemplary role model."



## Kappa Gamma Chapter Installed University of Alaska

by Gerald Walker



The Chapter Charter was presented to Dr. John Aspnes (Electrical Engineering Department Head at right) by Dr. Endrik Noges (representing Eta Kappa Nu national headquarters at left) as Dr. Gerald Walker (faculty advisor) looks on.

The University of Alaska Fairbanks Kappa Gamma chapter of Eta Kappa Nu was installed on March 3, 1992. The ceremony was held in room 533 of the Duckering Building on campus. A reception for members, families and guests was held at the Copper House on campus following the

ceremony. The Kappa Gamma Chapter is proud to uphold the traditions and high standards of Eta Kappa Nu. Kappa Gamma expresses its appreciation to Dr. Endrik Noges, EE Department Chair, University of Washington at Seattle, who served as installing officer.

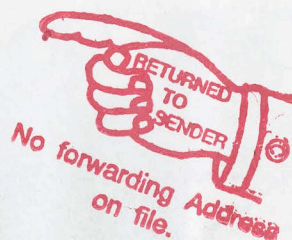


The Spring 1992 Charter Members of Kappa Gamma chapter of Eta Kappa Nu (from left to right) are: Thomas Zietlow, Afroz Khan, Mathew Peterson, Jeremy Reimherr, James Baker, Chris Carter, Ken Brune, Thomas Clark, Brian Chouinard, Alex Smith, Duane Risse, Jason Williams, Richard Reimers, Mark Schott, and Priyan Gunatilake.



The officers and faculty advisor for the Kappa Gamma Chapter (from left) are: James Baker (Treasurer), Dr. Gerald Walker (Faculty Advisor), Afroz Khan (Recording Secretary), Chris Carter (Bridge Correspondent), Brian Chouinard (Vice President), Duane Risse (President), and Thomas Clark (Corresponding Secretary).





IU 93 O 04/05/91  
Jeffrey Hirschberg  
[Redacted]  
[Redacted]

*DC*

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