



BRIDGE of Eta Kappa Nu



Jo Dale Carothers
1995 Winner
HKN Outstanding Professor Award

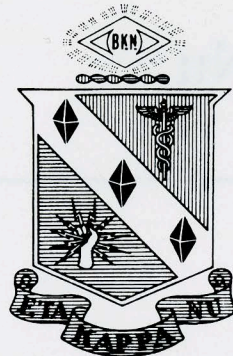


Also Featured:

**Historical HKN Benchmarks-
Part III by Larry Dwon**

**Gamma Mu's Honorable
Mention Report**

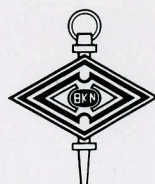




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November 1995
Vol 92 - No. 1

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Larry Dwon
Alan Lefkow



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

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, \$15, Life Subscription, \$60.

Address editorial and subscription correspondence and changes of address to:

HKN BRIDGE, P.O. Box 2107
Rolla, MO 65402

Postmaster: Send address changes to: HKN Bridge, P.O. Box 2107, Rolla, MO 65402.

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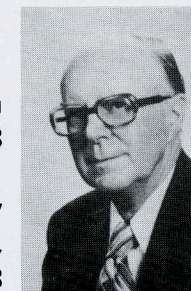
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\$30
effective July 1, 1995
which includes a 2 year initial subscription to
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Mail Convention

PAUL K. HUDSON HKN DEVELOPMENT FUND ANNUAL CAMPAIGN

Paul K. Hudson
1916-1988

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



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

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

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

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

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

____ Distinguished Fellow (\$2000 and above)

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

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

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

____ Fellow (\$25 - \$99)

with the enclosed contribution of \$_____.

____ I wish to pledge a total of \$_____ to the Hudson Fund, at \$_____ per year for _____ years,
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JO DALE CAROTHERS WINS C. HOLMES MACDONALD OUTSTANDING TEACHING AWARD

by Robert F. Arehart

Jo Dale Carothers, assistant professor in Electrical and Computer Engineering (ECE) at the University of Arizona in Tucson, has won the 1995 C. Holmes MacDonald Outstanding Teaching Award for Young Electrical Engineering Professors. Each year, the award is given by the national electrical engineering honor society, Eta Kappa Nu, to recognize an exceptional, young electrical engineering professor.

The award was presented on May 12, 1995 by Laureen Parker, a past national president of Eta Kappa Nu. She noted that Carothers has instituted an undergraduate course that is now required of all computer engineering majors. Carothers also has started a new graduate course that is being offered via satellite to companies around the country for on-site continuing education of engineers. In addition, she has started the first design contest for undergraduates ever offered in conjunction with an ECE course in her department.

Carothers also has actively recruited undergraduates to work in her lab, and garnered research funding to support their work. "In this way, undergraduates get

a feel for what research is about," Parker said. "And they get a feel for the field of study in which she (Carothers) is involved. This helps students determine what they want to do, whether they want to go to graduate school, and whether they are interested in the field in which Carothers is working."

The award is named for C. Holmes MacDonald, a Bell Telephone engineer and past national director of Eta Kappa Nu. He established the award in 1972 to recognize the crucial role that college professors play in educating and motivating future electrical engineers. The award is given to professors who are no older than 35, and have demonstrated special dedication and creativity in their teaching.

In a letter supporting Dr. Carothers' nomination for this award, Dr. Ernest T. Smerdon, University of Arizona Dean of Engineering, provided the following remarks: "Dr. Carothers, an accomplished engineer, is making significant contributions to a strong Electrical and Computer Engineering Department at the University of Arizona.

"The microprocessor interfacing course (ECE 475) under her direction is now holding a formal design contest and demonstration for all ECE students. This has developed into a very popular ECE senior tech elective. Dr. Carothers has also served as a liaison to the Computer Science Department and has been instrumental in expanding the level of cooperation between ECE and CS in the undergraduate area.

"Dr. Carothers is serving as advisor for our Eta Kappa Nu Chapter (approximately 20 initiates this semester). We are proud of the initiatives that this group has taken including tutoring for ECE freshmen and sophomores. In addition to HKN, she has actively served on the ECE equipment Committee, the ECE Computer Policy Committee, and a College Committee dealing with maintaining quality in undergraduate education. Dr. Carothers has also been an effective ambassador to our local schools on behalf of engineering.

"In terms of research, Dr. Carothers is making excellent progress. She has received support from the National Science Foundation and from SUN Microsystems (a significant equipment grant). She has had numerous M.S.E.E. students and her first Ph.D. student will soon graduate. Dr. Carothers has also welcomed high school students into her on-campus research group. Professionally, she has been involved with the IEEE International Phoenix Conference on Computers and Communications and is IEEE IPCCC Program Chair for 1995. Dr. Carothers is also on the Technical Committee for IEEE ASIC '95 and 1995 IEEE International Workshop on Rapid System Prototyping.

"I believe that Dr. Jo Dale Carothers is truly an outstanding young electrical engineer. She is making significant contributions to the engineering profession and is destined to be a recognized leader in engineering education and research."

And from Dr. Glen C. Gerhard, Associate Head, Arizona ECE Department, the following supportive statements were provided: "Dr. Carothers came to us as an Assistant Professor in 1990 after an outstanding performance as a student at the University of Texas at Austin. She has continued to demonstrate excellence in all of her professional activities in this department.

"Dr. Carothers is singularly responsible for invigorating and giving new life to the Iota Xi Chapter of Eta Kappa Nu on this campus. Her infectious enthusiasm and leadership made this valuable addition to the professional lives of our students a great success. As a result of her efforts, the chapter earned an "Outstanding Chapter Award - Honorable Mention" for the 1992-1993 academic year. She is considered to be a superb teacher at all levels by students and colleagues alike. Additionally, she has actively involved undergraduate students in her research programs, and has played a major role in seeking funding for: 1) improvements in student access to computers at all levels; 2) providing "This is Engineering" programs for junior high and high



Former HKN President, Laureen H. Parker, making presentation to Dr. Carothers

school students; and 3) special minority student recruitment programs. From 1988 to 1990, she was National Chair of the Norman R. Carson Outstanding Junior Electrical Engineering Award selection Committee for Eta Kappa Nu.

"Dr. Carothers has been most active in professional activities. She has served on NSF proposal review panels, has served several times on the Executive Committee for the IEEE International Phoenix Conference on Computers and Communication, and has also been active as a session organizer and chair for that conference. At the local level, she championed undergraduate instructional equipment purchases in our departmental Equipment Committee and has served on the College Ad Hoc Committee on Quality Undergraduate Education Under Budget Constraints. Dr. Carothers has many outside interests. She studied classical piano for a number of years, is an avid golfer and tennis player, and has developed an active interest in the theater."

A former student, Mr. David Gassen writes: "Dr. Carothers was my thesis advisor while I was pursuing a Masters degree in electrical engineering at the University of Arizona from 1991 to 1993. My choice of Dr. Carothers as my thesis advisor was made after talking with most of the computer engineering oriented faculty in the department. At the time, I felt Dr. Carothers provided the best match, both in personality compati-

bility and in the fact that I would have the freedom to choose my own thesis project. All I will say about my thesis is that it involved investigating the use of neural network algorithms to solve some hard optimization problems related to behavioral synthesis. Dr. Carothers' background was strong in behavioral synthesis, and I had been interested in neural networks for some time.

"I believe what most impressed me about Dr. Carothers was how well she treated and supported me and the other graduate students working under her. The working relationship was akin to that of peers in a work environment. Dr. Carothers would never talk down to her students, and she would always patiently explain any technical issues that were not immediately understood. At one point Dr. Carothers had as many as eight students under her advisement, and a weekly status meeting was instituted so everyone could be kept up to date on each other's progress. Computational resources were never a problem despite the number of people; Dr. Carothers had received through grants six or seven workstations, and maintained them in a room set aside for her use. Dr. Carothers always responded quickly to any problems with the computer network, and continually worked to upgrade the current setup. Despite a very hectic schedule—teaching classes, writing proposals, administrative tasks, Dr. Carothers was accessible most often and ready to discuss whatever problems my project might be having at the time, along with giving me encouragement whenever I was about to throw my hands up. Dr. Carothers would always help in trying to find financial assistance for both me and the other graduate students, be it through possible research assistantships, teaching assistantships, or temporary commercial employment. And of course she was always ready to celebrate when one of her students graduated.

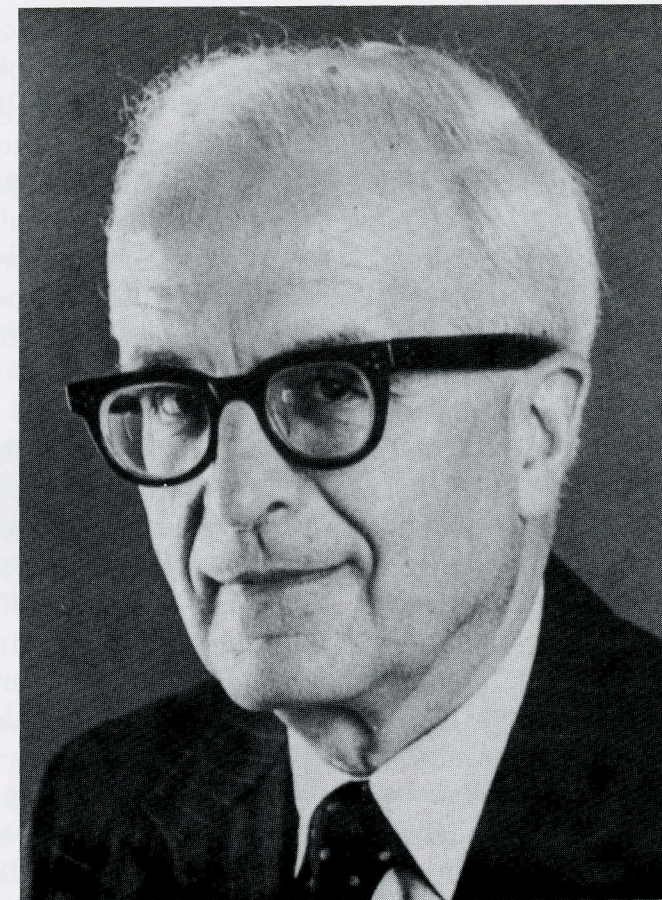
"In retrospect, I believe I made an excellent choice for a thesis advisor. My experience with Dr. Carothers has clearly shown that she places a high priority on her students. This is a trait which I believe all outstanding

educators must possess."

Another former student, Mr. Tom Hameenanttila, adds: "In my years as a student at the University of Arizona, I have taken three courses from Dr. Carothers in a broad range of topics. In each, she has been an excellent instructor. Clarity of presentation and effective organization made the classes enjoyable, and Dr. Carothers stands out in her willingness to further explain material after class or in office hours. I have found that her interest in students' individual concerns is perhaps Dr. Carothers' chief asset.

"I first came to know Dr. Carothers as a research advisor in late 1992, when I decided to work with her on my senior design project. She gave me an opportunity to work on one portion of one of her research tasks, which was a unique learning experience for me. In my work on the project, I interacted with graduate students and attended her laboratory group meetings. Dr. Carothers was remarkably helpful and accessible for the duration of my work and encouraged me to gain valuable graduate research experience within the framework of the project.

"My choice to stay with Dr. Carothers as one of her graduate students has been a rewarding one. She continues to be highly accessible to me, as well as to her other students. Her research lab is a healthy work environment in which students working on different projects often interact with each other for their mutual benefit. Weekly meetings involve all of her graduates, as well as a steady stream of undergraduate researchers. While her research goals have become more specific over the past few years, she maintains a great deal of flexibility with regard to which aspects of the research various students deal with and what approach is taken to the work. While Dr. Carothers demands results, it is clear that her primary interest is the growth and welfare of the student; the time she invests in making sure that her graduate students are prepared for defense of their research and various requisite exams is evidence of that."



HISTORICAL HKN BENCHMARKS

Part III: A Publication For A Growing Society

(With Personal Commentary)

by Larry Dwon

Prior articles described the emergence and growth of Eta Kappa Nu from an idea in the mind of Maurice L. Carr and the subsequent dedicated nurturing of his concept by the founders and other volunteers. They also called attention to the enormous work that became necessary to keep HKN growing and viable. It was a major planning and organizing voluntary effort. It became an equally major operating effort as has been and will be further demonstrated in this and future segments of this brief historical account.

HKN's Alpha chapter became an accepted organization in 1904; first, at the University of Illinois campus in Urbana, IL, USA. In 1905, Beta chapter followed at Purdue University in West Lafayette, Indiana. As explained previously, Beta became Eta, for a period, while an unintentional infraction was being clarified by the presidents of Purdue and Eta Kappa Nu. In 1908, it became Beta again. The increasing number of chapters predestined a need for an official publication so that the students and graduate members could be

In Memoriam George Balderston

George Balderston, 74, of Paoli, Pennsylvania died Friday, April 14, 1995, at his residence. He was the husband of Margaret Smith Balderston.

Born in Philadelphia, he was the son of the late George and Virginia Maxwell Balderston, grew up in West Chester, and has been a resi-

dent of Paoli, PA for the past 39 years. He was a 1943 graduate of Drexel University.

He was an electrical engineer for PECO Energy Co. for 39 years and participated in many industry associations, including Eta Kappa Nu, IEEE, EPRI.

He was a long-time member and elder of the Paoli Presbyterian

Church. He was active in Chester County Boy Scouts of America for more than 60 years, including leadership in Paoli Troop 100 and the Order of the Arrow.

In addition to his wife, he is survived by two sons, David M. Balderston of Spring, Texas, and Philip A. Balderston of West Chester; a sister, Margaret Gotch of Moorestown, NJ; and six grandchildren.

kept periodically informed about the Association's events and concerns, as well as, on other matters affecting electrical engineers' careers. Therefore, this article describes the evolution of The Bridge, our official publication.

A 1929 statement by founder Maurice L. Carr seems to be an appropriate beginning: *"Our first publication was a small four page leaflet, 'Electrical Field', issued in 1906. It was devoted almost entirely to the subject of employment..... The leaflet was national in character, covering activities of both Illinois and Purdue chapters, and included a list of graduates of each chapter for 1906. It was the beginning of what is now The Bridge. I recall feeling a bit of regret when the name of the association's publication was changed from the Electrical Field to The Bridge."*

Actually, there was a publication named The Year Book between the two.

In 1906, E. B. Wheeler, second president of the Executive Committee, included the following statement in a letter to Beta chapter: *"The publishing of the Electrical Field is important. I believe brother Williams of Alpha chapter was elected editor for the year."*

The Electrical Field was authorized to be a semi-annual publication by a statute approved in the second National Convention of Eta Kappa Nu, which convened in Urbana in 1906.

The convention specified that an editor *"shall be appointed by the national convention and an assistant editor shall be elected by each chapter. The expenses of publication shall be a per capita assessment of the active members."*

At the same convention, it was also enacted that the office of Historian should be created at each local chapter, for the purpose of keeping information concerning the past and present of each graduate and that he should be ex-officio assistant editor of the official publication.

At the third Annual Convention, it was enacted that the President of the Executive Committee "shall appoint the editor," and an "assistant editor shall be elected by each

chapter." The expenses of publication were to be met by subscription of 25 cents from members, both active and graduate. It is interesting to note that active members were considered to be those in college chapters and that no recognition seems to have been given to the many volunteers among the graduates.

At the fourth annual convention in 1908, the expenses of publication were distributed as follows:

- Each chapter was to be assessed the sum of five dollars to be paid at the beginning of the school year.
- All additional expenses arising from publication shall be pro-rated among the chapters on the basis of copies received.

The selected editors were volunteers receiving no remuneration. The expenses of publication were a matter of continual discussion and change at conventions and among officers. For example, a letter from L. A. Harris to E. B. Wheeler dated February 25, 1911, stated that the fifth national convention, *"Levied one dollar per member to help publish The Bridge", and it further states that the "6th national convention levied each chapter five dollars", also to help publish the Bridge.*

An editorial in 1919 stated that the Directory was in a hopeless condition. From 1918 through 1924 various reports concerning numbers of subscribers were confusing.

Contradictory statistics reflected the difficulties that volunteers, working on a part time basis, encountered in keeping records and maintaining an active group of subscribers.

The ninth convention minutes included the following statement: *"Be it enacted by the National Convention of Eta Kappa Nu Association that there be established an official publication which shall be named 'The Bridge', Be it further enacted that the staff of this publication be made up of an editor who shall be the vice president of the NEC as provided in the Constitution, an associate editor from each chapter and a manager who shall be appointed by the president. Be it further provided that the price of The Bridge be*

50 cents and that each chapter shall order at least the number equal to the enrollment of the chapter as declared in its report to the convention that year."

Up to this time, The Bridge included no advertising. On May 3, 1917, H.S. Conklin wrote to C.C. Carr, cousin of the founder, that an attempt was made to establish an advertising department. Space was offered at \$10 per page (6x9 inches) to seven companies with no results.

In spite of organization and economic tribulations, The Bridge managed to survive; but only through extraordinary dedication by many inexperienced members who volunteered time and effort generously.

From 1904 to 1910, the Electrical Field struggled as the official publication. From 1910 to 1913 The Year Book replaced it as a 44 page booklet issued annually. The Bridge followed as an annual publication, with 160 pages, until 1916. In October 1919, it became a quarterly publication.

Some idea of how this publication was being received was expressed in a letter written by F. J. Strassner which is interesting also in its style of writing: *"Your favor of the 19th instance and a copy of the Bridge at hand. I thank you for sending it as I have not received one from the chapter at Purdue. The book is a credit to the organization and the editors should feel proud of their work. One cannot read the book without realization that HKN stands for something in the eyes of its members and the business and education worlds as well, and that their standard is growing by leaps and bounds. Fifty cents in silver is enclosed."*

An editorial in 1919 described the situation regarding the publication's evolution as follows: *"For several years there has been agitation for a change in the method of handling the Bridge publication.... The New York Alumni chapter proposed that an office manager be appointed to take charge of the records, publication and employment work of the Association, and that he be paid enough so that he could devote his entire*

time to the work....This cannot be accomplished until some means is devised to finance the plan....Until such a plan can be worked out, The Bridge must be handled as a sideline."

As a sideline, it continued to be handled by inexperienced but dedicated volunteers, for a very long period. Though the times were extremely difficult, from 1919 through 1928 The Bridge began to look like a professional magazine. The quarterly issues were now 7x10 inches in dimensions and they ran about 200 pages annually. In 1923, The Bridge was declared to be financially self-supporting.

Beginning with the November 1923 issue, The Bridge appeared as a 9 by 12 inch standard engineering journal. However, it did not contain engineering articles. The aim was to carry human interest articles which busy alumni would take time to read. *The Bridge continued to be considered the main instrument of contact with the world-at-large and "by it we as a fraternity will be judged,"* wrote editor John Weigt.

Significant progress was being made as the following editorials indicate: *"That educators and engineers outside the fraternity have recognized its worth (Salary Surveys reported in The Bridge) is evidenced by the requests which have been received asking permission to use the data. A few who have been given permission are Commission on Education, Washington, DC; Society for Promotion of Engineering Education, and American Institute of Electrical Engineers."*

However, problems continued to plague the editors as the following editorial indicates: *"In order to maintain The Bridge at its present standard will require 800 alumni subscriptions. This year we have only a few over 400.... No one is employed to run the Bridge."*

John was the longest serving volunteer as editor of The Bridge. Soon after John's editorial, the Association's magazine displayed an advertisement for an executive secretary. This action was authorized by the 23rd Annual Convention which proposed that a full time

executive secretary should be employed who would take over the work of the vice presidents, secretary, assistant secretary, treasurer and The Bridge editor.

A difficult era for the Association's publications was nearing an end. The following farewell statement of the staff appeared in The Bridge: "After the war and beginning with college year 1919-1920, Brother D. G. Evans saw the need for a magazine which, by coming out more frequently, would knit our growing organization more closely together. Brother Evans agreed to take over the editorship and make it a quarterly."

"It was then suggested that the New York alumni chapter take over the publishing of our magazine for a time. J. B. Kelly consented to be the editor and F. E. Brooks the business manager, and so The Bridge moved to New York."

"The 1921 National Convention decided that since the new quarterly was on a paying basis, the editor should be paid an honorarium each year." [J. W. Weigt was selected to receive the first honorarium.]

"The Bridge continued essentially in the same form for the two years 1921-1923. Beginning with November, 1923, certain radical changes were made. The size was increased to 9 x 12 inches, and the magazine was divided into two parts. The forward part (2 columns per page) were general interest articles, the rear part (3 columns per page) contained fraternity news. An editorial policy was adopted of eliminating strictly technical articles."

In 1921, Irwin Shoop joined the staff. Hale and Lamont came later. Evans, Kelly, Brooks, Weigt, Irwin, Shoop, Hale and Lamont were given deserving credit for their unselfish contributions, in behalf of Eta Kappa Nu, by J. A. Umhoefer, the incoming editor of The Bridge. His editorial entitled "True service to the Fraternity" speaks for itself:

"No reference to the past editors would be complete without specific reference to editor J. W. Weigt, Kappa 18, who piloted the struggling infant magazine through its most try-

ing period. He became editor in 1921, confronted with countless problems: the magazine was far from self supporting; it had scant help from alumni membership; the lack of systematic files made necessary an enormous amount of detail work. Such details had to be overcome by an editor working only in his spare time. In 1928, these problems were overcome and The Bridge passed into new hands. This is a spirit of HKN which few men possess."

The era beyond 1929 was one during which an editor was paid for producing The Bridge and was employed by Eta Kappa Nu. Although the change was progressive and wise, the following problems still hindered the publication:

1. The depression forced many discontinuities in employment among members, which in turn created problems in securing articles and maintaining a directory. At the same time, new opportunities arose for publishing articles regarding employment matters.
2. World War II raised havoc on college campuses and industry as well. The burden of keeping The Bridge functions working smoothly fell on the shoulders of a small number of volunteers.
3. Changes in editors around A. B. Zerby's retirement period resulted in problems of a different nature among hired staff personnel, officers and the inexperienced new Executive Secretary. I was vice president and president in these transition years so I became acquainted with the problems first hand.
4. Rising costs contributed severely towards the general and specific difficulties.

Nevertheless, this era gave HKN some of its noteworthy activities. The Bridge made great strides in quality, but some of them had to be abandoned primarily because of their cost. There were other reasons which are not important here.

In the background of positive progress of The Bridge was E. E. Grazda, chairman of The Bridge committee from 1952 to 1954 and from

1957 to 1959 when it became The Bridge Policy committee. The members of this committee were H.A. Berger, M. Brenner, H. L. Garbarino, P. B. Garrett, and F.E. Sanford. This committee deserves considerable credit for helping to improve The Bridge during A. B. Zerby's tenure. E. E. Grazda's objective advice was valued by the officers at a very critical time in 1958 and 1959, when J. J. Raffone was under contract as editor.

Some selected comments give the flavor of the favorable appraisals. In A.B. Zerby's period, Richard C. Price, Alpha '50 wrote: "I wish to take this opportunity to comment on the excellent articles that have been appearing in The Bridge. I thought your Fall 1954 issue especially good."

For a brief period, J. J. Raffone, an experienced editor, transformed The Bridge from its fraternal style of many years to one that took on the more modern commercial look of the publishing industry. S. Reid Warren, Jr., J. D. Ryder and Carl Koerner—national HKN officers who preceded me—had this to say about Raffone's contract and results: They negotiated the contract with Raffone.

"The Bridge contract with Raffone established an arrangement actively providing editorial breadth and progressiveness, and with promise of financial success in the long term. The news of its termination will provide disappointment to many."

C. H. MacDonald—interim Vice President of HKN (J. G. Tarboux died) during my term as president—wrote the following to me: "The recent issues of The Bridge have caused a number of favorable comments and I share your regret that the Raffone contract must be terminated."

Holmes, as friends called MacDonald, also was HKN's financial advisor at the time. He knew the financial burdens which faced the Association as well as did Paul Hudson, Executive Secretary. Also, I. Raffone was my good friend; so terminating him was not a pleasant nor an easy matter especially since I also liked the new Bridge look. E.E. Grazda,

chairman of The Bridge Policy committee, was asked for advice. The action was taken primarily because "the new" look was costing too much in money and stressful administrative relationships between the Executive Secretary and the new editor. It was a tough management decision that I had to make after much discussion with and advice from prominent members of HKN, including the New York Alumni Advisory Council and E. E. Grazda, chairman of the Bridge Policy committee.

Regardless of temporary disappointments, The Bridge lived. Paul K. Hudson, Executive Secretary and Bridge editor, took charge with some on-campus help from H. R. Spies, in 1959 and 1960, and thereafter Paul did the job himself with some assistance from various persons he named assistant editors. In P. K. Hudson's era a new style emerged which was liked by some members but not by all. Al Naeter wrote in the Fall, 1964 issue: "I am really enjoying reading the latest issue of The Bridge. I for one like it best among recent issues."

Everett S. Lee wrote in the August, 1971 issue: "The February, 1971 Bridge has just arrived. Paul, it is wonderful, wonderful, wonderful! Our congratulations to you...." In the same issue, Alfred N. Goldsmith, Eminent member, wrote: "I was particularly impressed with some of the data given in the February, 1971, issue of The Bridge. And I should like to secure, and purchase, six copies of this issue."

Other complimentary letters were published in later issues. There were some members who liked the travelogue and those depicting the historic castles and chapels which Paul Hudson visited in Europe. Others expressed interest in articles which focused on HKN's fraternal activities....new chapters initiations, chapter activities and chapter visits. Still others have expressed interest in having more articles which shed awareness about engineering careers and the employment environment, as the first issue of Electrical field had done.

Paul retired on December 31, 1987. Dr. J. Robert Betten became Executive Secretary and Bridge Editor. My observation has been that the current Bridge style includes a balance of fraternal information, HKN Award Programs, chapter activities, topics of current general interest and the employment environment facing college graduates and experienced engineers.

Tribute to The Bridge Editors

Returning to the historical focus on the evolution (1906-1975) of the Bridge and the principal editors of that era, no other function in the HKN organization is as important as the Executive Secretary and Bridge editor position. Therein lies the continuity of Eta Kappa Nu from the past, to the present and most importantly into the future. It is my opinion also, that especially, Zerby, Weigt and Hudson-demonstrated true HKN character in a magnificent manner. Many others who carried on as editors, on a part time voluntary basis, deserve recognition for serving voluntarily under considerable difficulty. Their service helped to keep the publications from passing out of existence. The following table lists the known editors who played important parts in the evolution of HKN's publications.

Editors of HKN Publications

Year	No. of issues annually	Responsible office	Editor
1905	1	Alpha chapter	G.W. Williams
1906	1	Alpha Chapter	G. W. Williams
1907	1	Alpha Chapter	G. W. Williams
1908	1	Alpha Chapter	G.W. Williams
1909	1	Alpha Chapter	W.C. Maddox
1910	1	Gamma Chap.	F.H. Bagley
1911	1	Epsilon Chap.	J.M. Spangler
1912	1	Zeta Chap.	C.C. Stephens
1913	1	Pittsburgh Alum. Chapter	R. H. Webb
1914	1	VP- N.E.C	A. B. Zerby
1915	1	"	R.H. Webb
1916	1	"	B. E. Miller
1917	1	"	H. S. Conklin
1918	1	"	F. A. Coffin
1919	1	"	D. G. Evans
1920	4	"	J. B. Kelly
1921	4	NY Alumni Chapter	J. W. Weigt
1922	4	"	"
1923	4	"	"

1924	4	"	"
1925	4	"	"
1926	4	"	"
1927	4	"	"
1928	4	"	"
1929	4	N.E.C.	J. A. Umhoefer
1930	6	"	"
1931	5	"	"
1932	5	"	L. A. Spangler
1933	5	"	"
1934	5	"	"
1935	5	"	A. B. Zerby
1936	5	"	"
1937	5	"	"
1938	5	"	"
1939	5	"	"
1940	5	"	"
1941	5	"	"
1942	6	"	"
1943	6	"	"
1944	6	"	"
1945	6	"	"
1946	6	"	"
1947	6	"	"
1948	6	"	"
1949	6	"	"
1950	6	"	"
1951	5	"	"
1952	4	"	"
1953	4	"	"
1954	4	"	"
1955	4	"	"
1956	4	"	"
1957	4	"	J.J. Raffone
1958	4	"	"
1959	4	"	H.R. Spies (P.K.H)
1960	4	"	"
1961	4	"	"
1962	4	"	"
1963	4	"	P.K. Hudson
1964	4	"	"

Notes about table

- The table continues similarly until 1975 where my historical research ended.
- I recommend that another person be identified to coordinate and continue preserving desired historical data for the future.
- Initially an assistant editor was also selected at each of the college chapters. This procedure continued until 1928, when the selected person began to be called Bridge correspondent.
- In the period covered by the foregoing table other alumni volunteers, from Chicago, Cleveland, Los Angeles, New

York, San Francisco, Philadelphia, served in the capacities of assistant or associate editors, circulation, advertising, biographical, photographic and business managers for HKN publications.

1905-1940 Period Among the assistant and associate editors appointed to help The Bridge editors were: (numbers indicate years served) R.T. Kaighin, A.H. Heitmann, M. Washburn, D.R. Lamont (6), A. Paone, C.A. Faust (2), R.I.Wilkinson (3). Serving as circulation manager was J.B. Irwin (6).

Advertising managers were: R. M. Shoop (6), H.L. Rusch (3).

Business managers were: E.S. Haymond, P. MacGilvary, H. Hersh, F.E. Brooks.

1941-1975 Period Among the assistant and associate editors were the following: L.F. Bernhard (4), H.L. Garb rino (4), W.J. Herrman, A.L. Roth (2), C.A. Faust (4), S. Wirth (6), W.C. Kling (2), S.J. Barnett, C. Koerner (6), V.L. Dzwonczyk (8), E.E. Grazda (9), H.W. Bryan (4), N.L. Best (17), L. Dwon (6), R. Slade (4), R.G. Lockett (4), H. Sheppard, A. R. Finley (2), E.L. Anderson (2).

A June 20, 1975 letter written to me, by L. A. Spangler, provided the following interesting details: "In 1928, HKN hired a full time secretary and Bridge editor (J. A. Umhoefer) at \$300 a month for a three year period. In 1931, George H. Kelly, then Vice President, knowing that I had edited the Iowa Engineer in my senior year at Iowa State, contacted me with this proposition".

"The depression was affecting HKN financing, the Secretary could see no future in the job and would resign. Kelly was to leave his sales job with Crouse-Hinds to set up a partnership with a Mr. Burns. If I would take the secretary job at \$200 a month, take over editing and publishing The Bridge, which was then a bi-monthly, (as a side-line to my sales job with Westinghouse) and split the \$200 and our office expenses with him, he would handle all correspondence with the chapters, other officers, etc."

"Westinghouse had instigated two or

three 10% pay cuts with Saturdays off, two days a month off, etc. , so I agreed, after getting approval of our Regional Vice President."

We located some office space in the Otis Elevator building, for I believe \$ 20 per month, (one block from the Union Station, where we took suburban trains to Hinsdale and Downers Grove. I made a deal with the old farm journal, Prairie Farmer, to print the Bridge. The old HKN addressograph files were shipped from New York and HKN headquarters functioned very well.

Kelly took care of correspondence during the day, doing his own typing. On several days of the month, while calling on railroad headquarters in Chicago and principal shops in three or four states and doing my office work, I would leave the Westinghouse office in the Opera building, eat a hurried meal in one of the Fred Harvey restaurants, get in two or three hours in the HKN office and take the 8:47 local to Downers Grove (55 minutes for reading) where my good wife would drive us a few blocks home in time to hear Amos and Andy on the radio at 10 PM. Approaching the mailing date, sometimes meant four or five evenings and some Saturdays of work."

It takes such innovation, cooperation, and that second mile of effort to get an important job done and it takes Eta Kappa Nu caliber people to provide the dedication and professional effort that is required to get the job done.

Returning to Spangler's letter, "By 1934, business conditions had improved. I had moved to Wilmette, and A.B. Zerby (Mr. Eta Kappa Nu) took over the job in Pittsburgh." People who knew him also know how well he earned and deserved that title. Some time later the HKN headquarters was moved to Dillsburg, PA, where Zerby lived. The Bridge was edited and published there.

'Life' Subscription Plan It took several years of effort to develop this plan. The principal volunteers who worked earnestly and long

hours on this plan were Morris Buck, Clifford Faust, and A.B. Zerby. The plan made it possible for members, who were less than 45 years old to pay 25 dollars to receive The Bridge for the remaining portion of their lives. Members who were older than 45 years, would pay \$20 for the same privilege. The money helped to publish The Bridge and made it possible for members to stay in contact with HKN continuously. In those days, HKN graduates only received The Bridge for one year after graduation. Therefore, many alumni tended to forget to renew their subscription and became totally disengaged from HKN affairs.

The first eleven Life Subscribers comprise an elite group of HKN members. They are listed below.

Life Subscribers on record 11/01/35

NAME	CHAPTER	YEAR	ORDER
M. L. Carr *	Alpha	1905	1
E. M. Wheeler #	"	"	2
Morris Buck @	"	Assoc.	3
C.A. Faust @	Nu	1927	4
H. F. Freeman	Zeta	1914	6
J. A. Euston	Alpha	1918	7
M. C. Hale	Theta	1914	8
F. E. Brooks	Zeta	1912	9
R. W. Fouse	Epsilon	1925	10
R. I. Wilkinson **	Nu	1925	11

* Principal Founder
Among the Founders
** Developed OYEE Award
@ Helped develop the Life Subscription Plan

The 1976 history of Eta Kappa Nu contains many interesting statistics concerning the contents of The Bridge as it evolved under different editors. For this brief historical review it should suffice to list the categories into which feature articles written for The Bridge could be classified. The categories are:

- Articles of national and international importance.
- Convention reports and founder's reminiscences.
- National Officers' reports and financial statements.
- Salary Survey articles and statistics.

- Employment and career guidance articles.
- Descriptions of selected companies and industries.
- Trends in Engineering Education.
- Articles about and by OYEE Award recipients and the honorable mention recipients.
- Articles about Chapter Award winners.
- Biographies of prominent Engineers and Engineering Educators.
- Miscellaneous articles just for reading pleasure, including humor, puzzles and hobbies, trips and people in foreign lands.

The reports by national officers and the financial statements were discontinued for unknown reasons since about 1960.

The most unique page appeared in Vol. 30, No. 5, pg. 29. It contained a proposed Eta Kappa Nu song which was written by Dr. Vladimir Karapetoff (Eminent member and substantial supporter of HKN). The tune of Lord Jeffrey Amherst was suggested for his words. Some old timers may recall that Dr. Karaepetoff invented the five string cello and was an accomplished musician. I remember him well as a very excellent teacher, mentor, and friend.

Professor R.J.W. Koopman wrote as follows after reading the first draft of the 1976 history: *"In reading the contributions to The Bridge, I was reminded that in it was published the first public disclosure by Professor P.M. Honnell....the machine remained for some years a "paper-theoretic device. The Bridge article is the first to disclose it as the Physical Matrix Computer."*

Among the members who maintained their interest in HKN by writing for The Bridge over a period exceeding 30 years, as of 1975, included: Paine (55 years), Faust (46), Heitmann (45), Zerby (44), Kock (42), Summers (41), Dwon (37), Wilkinson (36), Lee (35), Karapetoff (33), and Carr (32). HKN founder, M. L Carr, established a good example!

1993-94 Chapter Awards

Purdue's Beta Chapter is Thirteenth Consecutive Year National Winner

by Alan Lefkow

For the academic year 1993-94, four HKN college chapters received awards for having an outstanding program of activities. Awards are broken into three categories. Certificate of Merit winners are recognized as up-and-coming chapters whose programs demonstrate unselfish dedication to their fellow students and community. Only one chapter, Iota Gamma at the University of California-LA, received this recognition this year. Honorable Mention winners are recognized as truly outstanding chapters whose extensive program of activities stands out from the rest. Two chapters won this award for 1993-94: Gamma Mu at Texas A&M University, and Beta Epsilon at the University of Michigan. The National Winner is simply that chapter whose program stands out above all these others. For thirteen consecutive years, Beta Chapter at Purdue University has been chosen the National Winner due to its truly outstanding program of activities.

The Outstanding Chapter-Activities Award program epitomizes the characteristics of a successful member of Eta Kappa Nu. Members' election to Eta Kappa Nu demonstrates their academic ability. But members, working together in concert as a college chapter, demonstrate their humanitarian side with their activities of service to their fellow students, their department, their school, and the community at large. In return, the Chapter Award program provides recognition of college chapters for their programs of service to their students and community. For example, Texas A&M submitted their report in full color. Among their many activities, they acted as consultants to juniors during the spring scheduling period, and provided serious recommendations of improvements to their department head that were

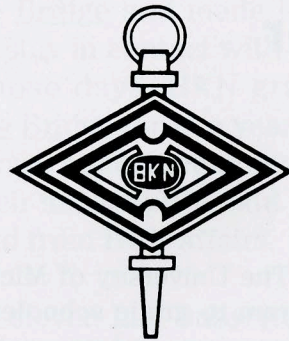
well received. The University of Michigan ran an Outreach program to grade schoolers about science and engineering, and generated a course evaluation guide for use by the students. They also participated in a Summer Science program for girls as part of the Center for the Education of Women. UCLA generated an E.E. curriculum survey, and sponsored an E.E. symposium of available research at the school for the upper classperson.

These are but a few of the activities the winning chapters performed for their school, department, or community. Outstanding chapters are selected based on their annual chapter report. Any chapter that sends in an annual report is automatically entered into the competition. Reports arrive at National after the end of the academic year and into early fall. They are judged in the winter, and the winners announced by spring. The Chapter Award program is also unique. One winning award can touch the hearts of a whole chapter. The award plaques themselves have been made as rich as possible. The National and Honorable Mention winners receive metal plaques engraved in color. The Certificate winners receive their awards laminated in walnut.

Winning chapters send in reports of distinction that do justice to their programs of activities, and many of these reports have been published in the pages of BRIDGE as examples to others. Desktop publishing and other professional services on campus have contributed to annual reports that look as good as the chapter they portray. A winning report requires hard work; but, then, so does an outstanding program of activities. Texas A&M's Honorable Mention report is presented here as an encouraging example.

ETA KAPPA NU

ANNUAL REPORT



GAMMA MU CHAPTER 1993-1994

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1993 - 1994 GAMMA MU CHAPTER OFFICERS

FALL

PRESIDENT	Yale Vinson
VICE-PRESIDENT	Doron Chosnek
TREASURER	Teresa Hinojosa
RECORDING SECRETARY	Alison McDaniel
CORRESPONDING SECRETARY	Matthew Felder
BRIDGE CORRESPONDENT/HISTORIAN	Keith Kunz
PUBLICITY CHAIRPERSON	Chris Forthman
VIDEO INFORMATION CENTER CHAIRPERSON	Erik Wilson
FACULTY ADVISOR	Mr. John Tyler
FACULTY ADVISOR	Dr. Karen Watson

SPRING

PRESIDENT	Yale Vinson
VICE-PRESIDENT	Doron Chosnek
TREASURER	Teresa Hinojosa
RECORDING SECRETARY	Alison McDaniel
CORRESPONDING SECRETARY	Matthew Felder
BRIDGE CORRESPONDENT/HISTORIAN	Keith Kunz
PUBLICITY CHAIRPERSON	Chris Forthman
VIDEO INFORMATION CENTER CHAIRPERSON	Erik Wilson
FACULTY ADVISOR	Mr. John Tyler
FACULTY ADVISOR	Dr. Karen Watson

2



Eta Kappa Nu Association ELECTRICAL ENGINEERING HONOR SOCIETY

A Letter from the President

When I was a freshman in the Fall of 1989, one of my primary academic goals was to become a member of Eta Kappa Nu. After all, no greater honor could be given to an electrical engineering student, and I saw it as the perfect opportunity to prove my academic achievement. Joining The Association in my junior year was one of the best things that I have ever done, but for entirely different reasons than I had anticipated.

The Gamma Mu Chapter of Eta Kappa Nu has a history of going beyond the "resume line" status that most honor organizations hold. With service projects like the Freshman Survival Guide, our involvement in the Big Event, and the new High School Lab Station Project, this organization has become a source of great pride, and the community has taken notice. The Gamma Mu chapter is one of the most active organizations within the largest college at Texas A&M University, a school of just under 45,000 students. We are very proud of this achievement, and we are striving to increase our involvement daily.

Beyond the academic accolades and the service to the community lies the common thread that bonds this chapter together: friendship. Some of the best friends that I have are people that I met through Eta Kappa Nu. It has been a long standing focus of the leadership to give members the opportunity to develop themselves socially. Engineers are too often so intent on their studies that they neglect other aspects of their development. One of the most rewarding aspects of being an officer is to see the friendships that have developed over the year as a result of being involved with Eta Kappa Nu.

The report that follows outlines the activities, achievements, and future plans of the Gamma Mu Chapter of Eta Kappa Nu for the 1993-1994 academic year. It was an exciting year in which we accomplished many great things. There is an old saying about our chapter that states, "you get out of it what you put into it." I have gained more from Eta Kappa Nu than I had ever anticipated. I know that the future members will enjoy the same rewards.

Yale Vinson
Yale Vinson
President, 1993-1994

Eta Kappa Nu Association • Department of Electrical Engineering
Texas A&M University • College Station, Texas 77843

SOCIAL ACTIVITIES

The Gamma Mu Chapter of Eta Kappa Nu has continued to sponsor social activities whose purpose has been to allow candidates and actives to interact with fellow students in an atmosphere outside of the classroom.

Eta Kappa Nu Picnic

Every semester the Eta Kappa Nu chapter at Texas A&M holds a picnic for the candidates and actives. The picnic is one of the more popular socials, everyone comes out for a little volleyball, football, and socializing. The picnic committee is in charge of grilling the barbecue. However, in the Spring semester, we decided to break with tradition and have the picnic catered by Tom's Barbecue. The food was excellent, and everyone enjoyed the picnic.



Candidates Enjoy Barbecue "Texas A&M Style" at Hensel Park

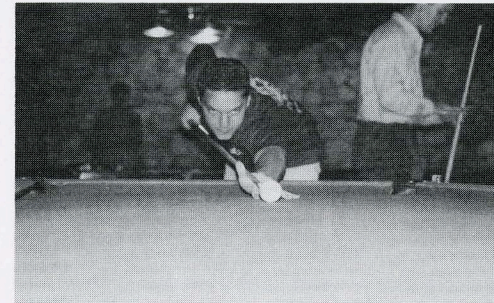
Bullwinkle's Bar and Grill

Bullwinkle's is one of the best places in Aggieland for groups to meet. The atmosphere is comfortable and relaxing, and offers groups a chance to relax and chat. Many Eta Kappa Nu members show up to play pool, foosball, air-hockey, and have a drink with their fellow students.

3

Pool Tournament at Hornback's

A pool tournament is held every semester at Alfred T. Hornback's. Each member chips into a pot and the winner takes all. In the Spring semester, we invited IEEE to join in the tournament to promote interaction between the organizations. As a result, the turnout was doubled, and everyone enjoyed themselves thoroughly. We anxiously anticipate the continuation of this new program with IEEE.



"Gleaming the Cue" at Alfred T. Hornback's

Country Western Dancing at Denim and Diamonds

The turnout this past year was one of the best ever for the D&D's social. Many HKN actives and candidates came out for an evening of two-stepping, a favorite at Texas A&M University.

4

SPEAKER MEETINGS

With every incoming group of candidates, which occurs on a semesterly schedule, Eta Kappa Nu provides technical and professional information for candidates in the form of speaker meetings.

Fall Speaker Representative: Texas Instruments

In the Fall, Carolyn Glass, from Texas Instruments, was invited to attend a chapter meeting to discuss their new Multi-Chip Module (MCM) Foundry, and the basic principles behind Multi-Chip Modules. The speech was highly technical, covering the advantages of MCM's, and the intense amount of integration associated with the design and fabrication of the chips. At the conclusion of the speech, Eta Kappa Nu members were invited to ask questions about the MCM process, and Texas Instruments in general. Several members asked questions varying from highly technical questions about circuit design to general questions about the industry as a whole, and the job opportunities at Texas Instruments in the near future. Ms. Glass presented a very challenging topic in terms that everyone could understand, and she answered every question placed before her. The chapter members appreciated the opportunity to discuss new and superior technology, and discover valuable information concerning the job market that they will soon be entering.

Spring Speaker Topic: Area Specialization Discussions

In cooperation with the Texas A&M University chapter of IEEE, Eta Kappa Nu presented the first ever Area Talks, discussing the electrical engineering curriculum and the many paths of specialization that are offered within the department. The electrical engineering department is divided into the following areas of specialization:

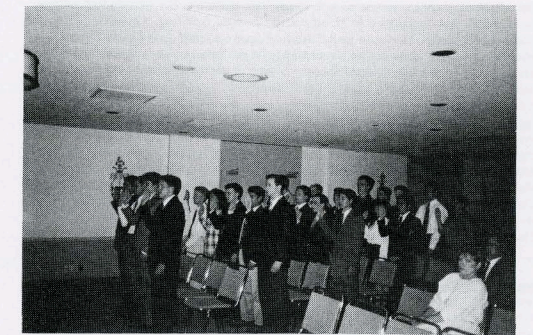
- Power
- Electromagnetics
- Solid State
- Electronics
- Control, Communications and Signal Processing
- Computer Engineering

Through a joint effort of IEEE and Eta Kappa Nu, professors from each specialization area were asked to give a ten minute speech about the focus and courses offered within his/her area, followed by a brief question and answer session. The goal of the evening was to inform undergraduates of the different options available to them within the department, and to inform future graduate students of available research opportunities. The meeting proved to be very popular, and provided insight into what area of electrical engineering most interested each student. IEEE and Eta Kappa Nu agreed that the meeting was a success.

6

Induction Ceremony

The induction ceremonies for the Fall and Spring Semesters were quite a success. The induction ceremonies were held in the Memorial Student Center which provides a professional atmosphere in comparison to a classroom. The parents of the inducted candidates were invited to attend the ceremony and were proud to watch their son/daughter receive their Eta Kappa Nu certificate.



"Taking the Oath" at the Induction Ceremony

Induction Banquet

In keeping with tradition at Texas A&M University, the induction banquet was once again held at Tom's Barbecue. Actives and newly inducted candidates attended the banquet along with their parents and/or dates and were served the "Aggie Special" which consists of a large portion of barbecue served on butcher paper (silverware only on request).

5

COMMUNITY SERVICE

Big Event

The Big Event is a university wide community service endeavor. Several thousand students from various Texas A&M organizations volunteer an entire day's work to better the Bryan and College Station communities. The Big Event has taken place each Spring for the past 12 years. The Gamma Mu chapter proudly kept its ongoing tradition by volunteering for the Big Event held during the Spring 1994 semester. Eta Kappa Nu was given the duty of yard work for Mrs. Washington, an elderly Bryan lady. During this all day event, candidates and actives performed such tasks as pulling weeds, trimming trees and shrubs, cleaning gutters, clearing an area for a garden, and even cutting down an old tree. The latter task proved to be challenging and required an overall effort from everyone. Before leaving for the day, everyone who participated was highly praised by Mrs. Washington for all of the hard work they had accomplished. Afterwards, the Gamma Mu chapter gathered for dinner and socialized on the day's events. This community service effort proved to be a rewarding experience for Eta Kappa Nu.

7

Video Information Center

The Video Information Center (VIC) has become a vital part of the Zachry Engineering Center. Thousands of students from all walks of life (or majors) pass through the Zachry Lobby each day. Their common thirst for knowledge of the outside world is provided on the VIC by CNN Headline News, The Weather Channel, and various other cable programs. A new information service provided by the VIC is the interview schedules of companies coming to A&M in search of future employees.

Freshman Survival Guide

The Freshman Survival Guide (FSG) covers virtually every aspect of freshman life at Texas A&M, and even offers some words of wisdom from students and faculty. The FSG is comprised of four major sections: Academics, Social Activities, Parking, and Additional Information. The birth of the FSG in the Fall of 1991 fostered overwhelming support and continues to exceed its expectations with every publication. The Freshman Survival Guide continues to play a key role in the electrical engineering freshman orientation program at Texas A&M University.

Engineering Open House

Each semester, the General Engineering Department sponsors an Open House in which students considering an engineering education can explore the various fields of engineering offered at Texas A&M. During this event, speakers from each department discuss with interested students the engineering field that they represent. Eta Kappa Nu participates in this event by representing the Electrical Engineering Department and fielding questions from students who may be interested in this particular field.

Quiz File

As a service to fellow electrical engineering students, Eta Kappa Nu maintains a quiz file in the IEEE/HKN office. The quiz file consists of old tests, quizzes, and homework that have been generously donated by upperclassmen. The quiz file contents can be photocopied by other students, and have proven to be quite helpful in surviving and succeeding in engineering at Texas A&M.

16

FUTURE PLANS

The Gamma Mu Chapter was encouraged by the exposure and the positive feedback we received from the High School Lab Station project. The project is not only a good recruiting tool for Texas A&M Engineering, it is also an excellent educational tool that most high schools could not afford to invest in without the help of Eta Kappa Nu. We plan to expand the project by improving upon the lab station and lab manuals as well as installing new lab stations.

Currently, funds are being raised to pay for the Zachry Engineering Center Park Project. The project is in a holding pattern until more sources for funding are reached. We are looking at ways to recognize those who donate to the project so that they might be more encouraged to support it.

Large and expensive projects like the High School Lab Station, the Park Project, and the completed Video Information Center require substantial fund raising. In the past our chapter has functioned mostly on corporate and departmental donations. We are looking at new ways to provide a significant monetary base to support these projects. We have sponsored car washes and raffles, but neither are satisfactory for funding large projects. Last year we attempted to put together a "Bonfire of Luxury" package to sell to the alumni of Texas A&M. The package included a viewing room in the Weisenbaker Research Building, reserved parking, video tape and news coverage of Bonfire, and a complementary buffet. Our selling point was the viewing room and unfortunately we were not able to secure reservations of the room. The Dean of Texas A&M had prior plans for the room. We are attempting to "strike a deal" with the Dean and/or find another location to hold the event. In the mean time, the search continues for other creative and successful ideas for fund raising.

18

HONORS AND RECOGNITION

Fall 1993 Outstanding Candidate

Mike Grimala was selected as the Outstanding Candidate for the Fall of 1993. Mike was very involved with Eta Kappa Nu's fundraising projects and assisted in the design of the High School Lab Station. Even though he is a graduate student, Mike still found the time to work on things above and beyond the requirements for membership.

Spring 1994 Outstanding Candidate

Royce Zatopek was selected as the Outstanding Candidate for the Spring of 1994. Royce's work with the organization transcended any one or two committees. His greatest contribution was exploring the possibilities for purchasing the equipment for the High School Lab Station. Royce was elected Vice President for the 1994 - 1995 academic year.

Outstanding Electrical Engineering Professor

Dr. Tom Talley was elected Outstanding Electrical Engineering Professor for the academic year. Dr. Talley has been teaching the senior design class since his arrival at Texas A&M in the Spring of 1992. He has expanded the class from a pure design course to a project management course that stresses management techniques, status reports, and reporting to a sponsor with project parameters and deliverable specifications. Dr. Talley has also been the Co-Op coordinator for the department and the IEEE chapter faculty advisor.

1994 - 1995 GAMMA MU CHAPTER OFFICERS

PRESIDENT
VICE-PRESIDENT
TREASURER
EXTERNAL RELATIONS
RECORDING SECRETARY
ACADEMIC RELATIONS
SOCIAL CHAIRPERSON
CO-HISTORIAN
CO-HISTORIAN
HIGH SCHOOL LAB CHAIRPERSON
TUTORING CHAIRPERSON

Matt Felder
Royce Zatopek
Chris Forthman
Wayne Newitts
Steven Graham
Dan Long
Ponch Gonzales
Paul Dugan
Stephen Spriggs
Dave Bartek
Doug Appar

17

1993 - 1994 CANDIDATES

FALL

Paul Dugan
Jana Flashing
Stephen Graham
Michael Grimaldi

Ray Jurgman
Kirk Klinkerman
Ching Hugh Chen
Harry Zaputra

SPRING

Douglas Appar
Ken Springer
David Brown
Timothy Lafferty
Chau Hoang Mai
Brandon Pillars
Claudio Sosa
Ramaiah Velidi
Dave Bartek
Joseph Yue-Wei Chen
Daniel Long
Ning Quan
David Stoller
Royce Zatopek

Stephen Spriggs
Reed Adams
Donald Cooper
Pho Quoc Le
Wayne Newitts
Miles Reeves
Steve Strittmatter
Michael Albert
Francisco Gonzales
Monica A. Lau C
Ricky Parker
Steve Rogers
Eliot Williams
Daniel Morton



Newly Inducted Spring 1994 Candidates

19

1992-93 Chapter Reports

Annual Report Theta Kappa

California State University
Fresno

OFFICERS AND DATA

Fall 1992

President.....Erwin Wolniewitz
Vice President.....Brett Meek
Treasurer.....Nathan Mandrell
Recording Secretary
.....Richard Calusdian
Corresponding Secretary
.....William Blanton
Bridge Correspondent
.....Kittiphon Tivaganon
Faculty Advisor
.....Dr. Medhat Ibrahim
Number of Members.....15
Number of New Initiates.....8

Spring 1993

President.....Erwin Wolniewitz
Vice President.....William Blanton
Treasurer.....Nathan Mandrell
Recording Secretary
.....Tony Tesoriere
Corresponding Secretary
.....Richard Jameson
Bridge Correspondent
.....Kittiphon Tivaganon
Faculty Advisor
.....Dr. Medhat Ibrahim
Number of Members.....23
Number of New Initiates.....5

Results of the Election for Next Term

President.....Tony Markarian
Vice President.....Jeff Bain
Recording Secretary
.....Tony Tesoriere
Corresponding Secretary
.....Mike Swanson
Bridge Correspondent
.....John Pegram

ACTIVITIES

- Our first annual "Electrical and

Computer Engineering Department Picnic" was held at a local park. It was a joint activity with the IEEE student branch. The purpose of the picnic was to get faculty members and students together in a casual setting. We will organize the picnic again next year.

- A mentorship program was created to help the incoming ECE Freshmen with a smooth transition to college. We hope to get more involvement from the members for the coming semester.
- We participated in the Outreach Program. We visited the local high schools, and showed them what Engineering is all about.
- Throughout the semester, we sold hamburgers for fund raising. We had a lot of fun. It was a good opportunity for the new initiates to work closely with the members.
- Every year, CSU, Fresno School of Engineering has an Open House. Local junior and senior high schools visit our school and learn more about college life. With the help of IEEE, we set up booths and various displays for the students.
- For National Engineering Week, we helped the ECE Department and the IEEE set up displays at a local mall to increase public awareness of the Engineering program at CSU, Fresno.
- We took a tour of the Sierra On-Line, Oakhurst facility. Since it was only a 2 hour drive from CSU, Fresno, we took the opportunity of the Spring Break to visit Sierra On-Line.
- We had speakers on various topics, technical and non-technical. One of the technical talks, which was given by our newest faculty member, Dr. Johnson, was on the

RISC microprocessor. One of the non-technical talks was on the Job Search, which was given by the University Career Placement staff member, Vicki Helenas.

- We participated in the softball tournament with the various clubs in the School of Engineering. We did not win the trophy, but we had a lot of fun.

Respectfully Submitted,

Kittiphon Tivaganon, Bridge
Correspondent

- Due to the hard work of the officers, and the ever more increasing involvement by the members of the Theta Kappa Chapter, 1992-93 was an exceptional year for this chapter of Eta Kappa Nu.
- During the academic year, the members worked together with the faculty of the Department of Electrical and Computer Engineering at California State University, Fresno, in diverse programs designed to better inform high school students, as well as the community, about these fields of Engineering.
- In 1992-93, Theta Kappa accomplished many other activities ranging from technical speakers and job placement information talks, to a softball tournament among the Engineering clubs.
- I believe Theta Kappa will continue its ongoing trend of accomplishments that have led to very fruitful years. I commend the officers and members of the chapter for their dedication, and encourage the new members to continue making Theta Kappa a proud chapter of Eta Kappa Nu.

Respectfully Submitted,

Erwin Wolniewitz, President

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Theta Tau

University of Michigan Dearborn

OFFICERS AND DATA

FALL 1992

President.....Gordon Henderson
Vice President.....John Krakowiak
Treasurer.....Robert Noutko
Recording Secretary...John Endredy
Corresponding Secretary

.....Jeff Lossing
Bridge Correspondent

.....Johnny Lau
Faculty Advisor

.....Dr. Malayappan Shridhar
Number of New Initiates.....13
Number of Business Meetings.....15

Spring 1993

President.....John Krakowiak
Vice PresidentJohnny Lau
TreasurerTerri Bumbul
Recording Secretary

.....Muhammed Jawad
Corresponding Secretary

.....Dina Khaled
Bridge Correspondent

.....Amy Cummings
Faculty Advisor

.....Dr. Malayappan Shridhar
Number of New Initiates.....8
Number of Business Meetings.....15

PROGRAM AND ACTIVITIES

The **Activity, Old, New, or C**
(Continued), and **Man Hours** are
listed below, respectively:

Fall 1992

Tutoring	C	30
Soup Kitchen	C	3
Engineering Mentorship	C	10
Recycling Program	C	5
Shirt Sale	C	15
Bulletin Board	C	2
Wally Ball Event	C	3

Spring 1993

Tutoring	C	30
Vision 2000	New	3
Soup Kitchen	C	3
Engineering Mentorship	C	10
Recycling Program	C	5
Shirt Sale	C	15
Bulletin Board	C	2
Wally Ball Event	C	3

To the Publishers of *The Bridge*:

Greetings from the Michigan Theta Tau Chapter at the University of Michigan-Dearborn. I am writing to report our activities for the 1993 Winter term (January through April).

As our officers and members believe in becoming acquainted with the potential members prior to initiation, several of our activities were organized for the new electees. We began the semester by inviting qualified students to join our association. A meeting was held to introduce these students to HKN. A slide presentation was shown and the tradition and requirements of HKN were explained.

One requirement for becoming a member of our chapter is that all electees perform a project to display their initiative and desire to join our association. One project chosen this semester was participation in Vision 2000 and was done in conjunction with our campus chapter of the Society of Automotive Engineers. Vision 2000 is a program whereby engineering students visit local middle schools to perform experiments and explain about the field of engineering. Other projects chosen included working at a local soup kitchen, tutoring underclass engineering students, and collecting returnable bottles at various collection sites on campus.

Another requirement is the electee test. This covers some basic electrical engineering problems and the history of HKN, however it also tests the humor, wit, and creative thinking of our potential members. Moreover, the officers held personal interviews with each electee to get to know them better. Our final activity to acquaint us informally with the electees prior to initiation was the "smoker." This is attended by all electees, officers, and any current members of HKN. Each potential member is placed upon a stage for five minutes and any member may ask questions of them. This is an opportunity for all new candidates to display their unique talents.

The culmination of a semester full of hard work and activities by our electees was their official initiation into the Theta Tau Chapter of HKN on April 16. Following the initiation ceremony, our association members, joined by our faculty advisors, honored our new members at a banquet. The banquet was held jointly with our campus chapter of Tau Beta Pi and their new initiates. The evening was highlighted by a humorous, thought-provoking, and thoroughly enjoyable speech by Professor Joseph Sullivan, one of our HKN faculty advisors.

Further projects sponsored by our organization included the very popular engineering sweatshirt and t-shirt sale. Additionally, elections were held at the end of the semester to choose our chapter's officers for the 1993 Fall term. This brought to a conclusion our major activities for this semester.

Sincerely,
Amy J. Cummings
Bridge Correspondent

Zeta Chi

University of Central Florida

On Thursday, February 18, 1993, the University of Central Florida Zeta Chi Chapter of Eta Kappa Nu took part in the annual Engineering Expo along with numerous other organizations within the College of Engineering. At an awards banquet following the Expo, the Zeta Chi Chapter was awarded first prize for best student organizational display. In addition, three members of the chapter were presented with individual scholarships.

The Engineering Expo is an annual event organized by the University of Central Florida College of Engineering. Many of the individual engineering clubs and organizations take part in the Expo. Each organization is permitted to set up a table providing details about its organization to recruit new members by informing students of eligibility requirements. This year, in

addition, each organization was required to set up a display or game pertaining to their club's area of interest. The Expo is a good opportunity for networking because local engineering firms are invited to participate and set up tables and recruit students. The '93 Expo was the largest in history for company involvement; many companies took part, among them AT&T, and Motorola.

The Zeta Chi Chapter display consisted of one of the actual cars used by an innovative research group. The group has designed "smart" cars; these are still in the testing stage and are being used primarily in the tourist areas throughout Orlando where the various features can be put to use. Each car contains a computer complete with compact keyboard. The internal memory of the computer contains detailed maps that can be accessed by street name. The computer provides routing patterns and can tell the driver the quickest way to get from one location to another, taking into account traffic, weather and road conditions. A device allows output to be given by a computerized voice for ease of use. Eta Kappa Nu arranged for the car to be displayed throughout the day and staffed by an employee of the company, who answered student's questions and displayed various features of the car. In addition, a representative from the Motorola Company was present at a separate display at the Eta Kappa Nu table. He brought one of the company's computers and demonstrated work that Motorola is doing with simulations with ships and ocean liners.

An awards banquet was held following the Engineering Expo. The Zeta Chi Chapter of Eta Kappa Nu was awarded first prize for their display. Individually, three members of the chapter were presented with scholarships. Theresa Schlitt won a scholarship from Allied Signal Corporation. Susan Erlandson was awarded the Frank M. Hubbard Engineering Scholarship.

In addition to taking part in the Engineering Expo, the Zeta Chi Chapter took part in many other activities in what turned out to be a busy and productive semester. In early February, a great deal of work by the officers, members and faculty involved with Eta Kappa Nu finally paid off. The monument of the Wheatstone Bridge, the national symbol of Eta Kappa Nu, was put up. The brass monument, surrounded by bricks was put up outside the Engineering building and stands to represent the Eta Kappa Nu chapter at UCF.

Each semester, new students and distinguished faculty become members of the Zeta Chi Chapter. This semester, 18 new members were initiated in a ceremony held April 3rd at the Radisson Plaza Hotel in downtown Orlando. The new initiates were: Barbara Elizabeth Aurelia, Kevin J. Bogusch, Daniel Joseph Burroughs, Amy Elizabeth Crikis, Steven Brodus Garris, Hany M. Girgis, Christopher J. Iannello, A. David Jennings III, Brian Richard Keif, Michael R. Moreland, Kevin A. Noll, Cesar R. Penafiel, Mark Poplin, Sandro Recine, Dianne Lyons Shoaf, Steward-Anthony Lennox Urruela, Samuel E. Walker and Dr. Mario Sznaiar. The initiation ceremony was presided over by chapter officers: William Frank, President; Michael Bender, Vice-President; Michael Bray, Treasurer; Michael Olive, Recording Secretary; Jeff Antoniewski, Corresponding Secretary and Jil Tolia, *Bridge* correspondent, as well as the faculty advisor, Dr. Issa Batarseh.

Fundraising was an important part of the semester for the Zeta Chi Chapter. A majority of the funds raised were used to pay for the Wheatstone Bridge installation as well as other club expenses. Any money that was left over was put into a fund to be divided up and donated to area schoolchildren to use for purchasing computer equipment and for a scholarship for a student entering the UCF College of

Engineering. T-shirts were sold at the Expo and at other activities during the semester. In addition, license plates with the UCF Engineering logo and baked goods were sold. The major fundraising event of the chapter took place on April 18th, when the first annual Eta Kappa Nu Golf Classic was held at the Wedgefield Golf & Country Club in Orlando. Over 18 teams of 4 people each, including students, faculty and local engineers took part in the event. Prizes were awarded to all who participated and money was raised for the chapter.

Kappa Alpha

Northern Illinois University

Northern Illinois' KA Chapter still maintains an accreditation with Eta Kappa Nu, and on April 24, 1992, the third induction ceremony took place at the School of Engineering, in DeKalb, Illinois. There were eighteen total members inducted, of which ten were graduate students, and eight were undergraduate students. After the induction ceremony a small business meeting took place that involved the election of new officers. The officers elected were: President:Shawn Clarke
Vice President:Pat Sharkey
Treasurer:John Painer
Recording Secretary:Ming Wei
Corresponding Secretary:
.....Guy Mereness

Since the Spring induction ceremony, the KA Chapter has gone through another induction ceremony, which took place on February 9, 1993. The induction was conducted at the Northern Illinois' School of Engineering. On this occasion there were a total of three undergraduate students, and eleven graduate students inducted. The ceremony was formal, and a business meeting took place after the induction. New officers were elected during the business meeting. The officers elected

Continued on Page 24...

...Continued from Page 23

were:

President:Perry Holman
Vice President:Dipa Vijayan
Treasurer:.....John Painer
Corresponding Secretary:.....
.....Alane Powers
Recording Secretary:.....
.....Pamela Marr-Laundrie

During the business meeting, plans were discussed for new pledges to perform various tasks. Such tasks would include: participating in a Blood Drive, helping with the JETS testing (proctoring exam), offering a minimum of five hours toward tutoring students in lower level engineering classes, or help set up engineering demonstrations given during Engineering week.

For the first time Northern Illinois University College of Engineering and Engineering Technology (CEET) elected to set up several engineering demonstrations in the NIU Student Holmes Center, on February 17, 1993, during Engineering week. As part of this united effort the KA chapter pre-

pared and demonstrated a superconductivity experiment, a control system that involved the automatic balancing of a ball on a track. And video tapes of prior Senior Design Projects were shown. This event provided the opportunity for the demonstration of electrical engineering fundamentals to prospective engineering students and to non-engineering faculty. The Associate Dean, Dr. Joy Pauschke, and our HKN advisor, Dr. James P. Bobis assisted in the demonstration and were available to provide information on the CEET and HKN.

Eta Kappa Nu has a current body of thirty-two members. Listed below are the names of the current active members in the KA chapter.

Graduate Students

Ke Chen
Brian Evans
Brian Finn
Anteneh Haile
Lydia Scarpelli
Steven Voepel
Mingjie Wang
Yong Wei

Shian-Ping Yang
Wei Zhang
*Perry Holman
*Mingjiang Ji
*Jyothsna Kunduru
*Jian Luan
*Xue-Wu Ma
*Kuo-Tung Sun
*Jose Tong
*Hermant Vashisth
*Dipa Vijayan
*Lih-Chang Wung
*Jian Zhang

Undergraduate Students

Shawn Clarke
Mat Hardy
Dave Heck
Guy Mereness
Les Musselman
John Painer
Pat Sharkey
Jeff Winkelman
*Madison Cole
*Pamela Marr-Laundrie
*Alane Powers

*New Inductees

MOVING?

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