

THE BRIDGE

vol 100, no. 1 / winter 2004

of Eta Kappa Nu



***A Century of
Honoring Excellence
in Electrical and Computer
Engineering***

**Eta Kappa Nu Centennial
1904 - 2004**



Special Centennial Collectors Edition

ETA KAPPA NU

Electrical and Computer Engineering Honor Society

The Eta Kappa Nu Association was founded at the University of Illinois at Urbana in 1904 by Maurice L. Carr, to encourage excellence in education for the benefit of the public by: Marking in a fitting manner those who have conferred honor upon engineering education by distinguished scholarship, activities, leadership and exemplary character as students in electrical or computer engineering, or by their attainments in the field of electrical or computer engineering; Providing educational and financial support to said students; and Fostering educational excellence in engineering colleges.



1904 - 2004

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THE BRIDGE of Eta Kappa Nu

Volume 100/ Number 1 / Winter 2004

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14 Centennial Leadership Conference

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Henry L. Bachman, Walter Jeremiah (Jerry) Sanders, and Arthur Stern are inducted as HKN's newest Eminent Members during the Centennial events.

Special Centennial Edition *A Century of Honoring Excellence in Electrical and Computer Engineering*

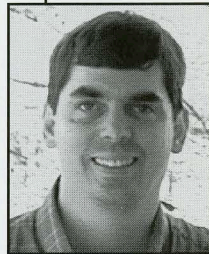
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FROM THE BRIDGE

A Special Centennial Tribute

Welcome to this special tribute to the first 100 years of Eta Kappa Nu. A century of Honoring Excellence is dedicated to the Eta Kappa Nu Association at the time of its centennial anniversary celebration at the University of Illinois. It is intended as a commemorative and historical record to which the many members and friends of Eta Kappa Nu can look with inspiration.

This special centennial collectors edition of *The Bridge* features articles covering our centennial festivities back at the University of Illinois where our society was founded one hundred years ago. Our Centennial Banquet held on October 23,



2004 was the pinnacle of our centennial year with many special guests sharing their congratulations on our historic milestone. Our Centennial Student Leadership Conference was held in conjunction with the centennial activities also back at the University of Illinois. In addition to covering these centennial events, this special edition covers the history of Eta Kappa Nu over its first hundred years.

As we cross into our next century, Eta Kappa Nu must continue to adapt as we strive to make our society more meaningful to students and alumni in the twenty-first century. We will focus on continuing to expand chapters, strengthening the ideals of honor, scholarship, ethics, and academic integrity for all members, and striving to build a strong national organization to support our chapters and members and publish *The Bridge* magazine. I view my role in HKN with great excitement because the possibilities for growth and improvement of our society are indeed limitless.

As I look back, I am awed by the magnitude of continuous contributions from many of the HKN members that I have had the privilege to work with. Many of these individuals are profiled in this centennial remembrance. As I look forward, I continue to see great individuals, great achievements and a great future for HKN.

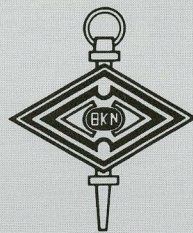
For now though, let's take a moment and reminisce. This special tribute is dedicated to where we have been. It follows our society, its leaders, and those it has recognized throughout the past century. It relates the history of our founding fathers and their goals for the society. It covers the growth of the society, and contains a tribute to its past presidents, board members, Eminent Members, and award programs. But most importantly, it follows Eta Kappa Nu itself and how the organization has changed and how the organization and its programs have adapted throughout the past century.

In the one hundred years since the first informal meetings were held on the Urbana campus, Eta Kappa Nu has achieved stature as the honor society for one of the world's most important professions. It is a common thread that binds together over two hundred thousand members that are dedicated to excellence in electrical and computer engineering.

Ron Spanke

A Century of Honoring Excellence in Electrical and Computer Engineering was prepared and published by the HKN headquarters staff as a token of respect for the electrical and computer engineering profession, as exemplified by the membership of the Eta Kappa Nu Association. Presidential historical research and compilation by Jutta Willmann. Editorial supervision and layout by Ron A. Spanke.

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Eta Kappa Nu Association

The Electrical and Computer Engineering Honor Society

Founded October 28, 1904

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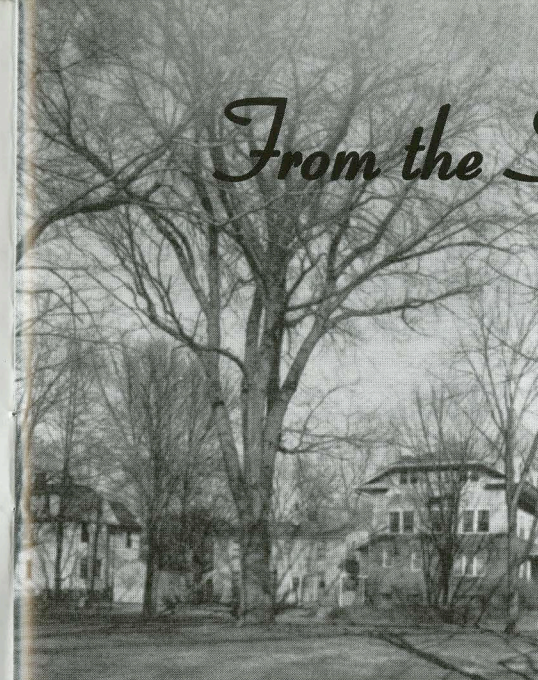
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Distinguished Service Award

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All board members and committee chairs can be reached through the HKN Headquarters Office

From the Shade of a Cottonwood Tree



A BRIEF HISTORY OF HKN'S EARLY DAYS

Prepared by ALTON B. ZERBY

HKN Executive Secretary 1954

Adapted by RON A. SPANKE

HKN Executive Director, 2004

If mythological beliefs persisted today, there would be many claims that Eta Kappa Nu sprang full-grown out of the mind of its Founder as the ancient Greeks claimed that Eros (Cupid) sprang out of the shoulder of Aphrodite. However, it is well known and fully accepted that worthy ideas as well as marvelous machines do not spring; they evolve through painstaking development. Furthermore, to have credited the founder of Eta Kappa Nu with having obtained his idea as a dream while sleeping would be a gross insult. True, Maurice L. Carr was a "dreamer," as are most men of vision, but his dreams were spirited daydreams and he had the mental and physical faculties and energy to carry them through, and the personality to interest nine others to use their brains and brawn in team-work-like true researchers and inventors of today.

At the installation of Beta-Delta Chapter in 1937, "ML" said he did not recall definitely when the idea first occurred to him of forming a collegiate society of electrical engineering students, but he thought it occurred sometime during his sophomore year. He said, however, that he knew with certainty that while working for a utility at Springfield, Missouri, during the summer of 1904, he resolved to sound out his classmates on the subject in the fall.

He first approached a particular buddy called "Army"—Charles E. Armstrong. The idea immediately met with Armstrong's approval and the two decided to broach the subject to other classmates. "Army," who was born September 30, 1874, was almost three years "ML's" senior. As founder Edmund Wheeler has pointed out, "He and ML were considerably older than most of the rest of the group and both had had much practical experience prior to their senior year. Thus the young organization had the advantage of their counsel and advice in both class and fraternal affairs, which all of us were glad to accept."

Following their first formal meeting on Friday evening, September 23, 1904, young Carr and Armstrong effected a meeting with Milton K. Akers, Edmund B. Wheeler, and Ralph E. Bowser, who became sufficiently infected with enthusiasm to agree to a planning session. Sunday morning "ML" and "Army" spent several hours on

the steps of the Astronomical Laboratory preparing written, tangible plans—they sought secrecy at this stage.

The five met as agreed in front of University Hall on Sunday afternoon, September 25, 1904, and wandered to a shady spot under a large cottonwood tree in the middle of an Agriculture Department field off the main campus. The tree has since become sentimentally emblematic of the early history of the organization, although it was but a chance choice and sheltered but a few subsequent meetings.

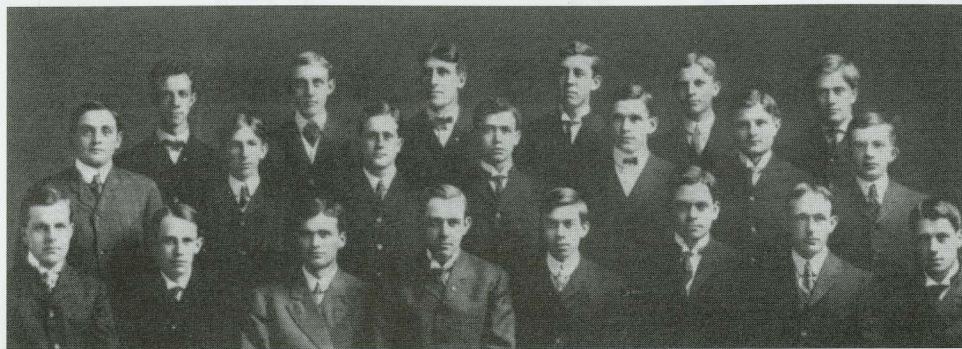
The following five weeks were extremely busy ones. A name and an emblem were chosen, policies of membership had to be defined, membership qualifications and an induction ritual were drafted. Early in this organization period Fred D. Smith, Frank R. Winders, and William T. Burnett joined the original five. Then, on October 28, 1904, at the home of Frank Winders, the first induction meeting was held. Carl K. Brydges and Hibbard S. Greene, both seniors, had by then consented to participate and it is fairly well established that Otto Wiemer became the first formal initiate.

Finally, the organization received recognition from the university administration and later meetings were held in a room in the EE building.

All early reports were that Carr's original idea was to make the chief purpose of the society one of employment—a professional union, we would call it today. But in those days such organizations were not thought of. The early publications quite plainly indicate this purpose. However, not many years passed and very few chapters were installed before it was decided that Eta Kappa Nu should be an EE honor society with scholarship as one of its chief qualifications.

Wheeler recalls that scholarship was an important consideration from the first, but not a deciding factor. As secretary of the pioneer chapter, he, along with Carr and others of the original ten, decided that invitation to membership should depend primarily upon a collective favorable judgement of individual candidates and as to the likelihood of their eventual success in the engineering field.

Thus it was concluded that some classmates would not be considered eligible regardless of their scholastic rating and the matter of



ETA KAPPA NU in 1905 (Alpha Chapter). Left to right, Front row: F. H. Winders, C. K. Brydges, F. E. Smith, M. L. Carr, E. B. Wheeler, M. K. Akers, C. E. Armstrong and H. S. Green. Middle row: C. C. Carr, W. T. Burnett, W. H. Weaver, L. V. James, O. Wiemer, L. Moseman, and R. E. Bowser. In rear: L. F. Wooster, M. H. Brightman, H. D. Cornell, T. H. Armine, G. W. Saathoff, and H. A. Bergert.

scholarship qualification for membership was temporarily deferred. In short, the founders were looking for future leaders of the profession!

With those basic ideals the organization was launched. The seal and plate for membership certificates were made up early in 1905 and the certificates were delivered in time for commencement. While HKN was strictly a "local" when organized, the foundations of a "national" were so strong that when the chapter assembled a first convention prior to the 1905 graduating exercises a full list of "national" officers was elected from the departing class.

The formation of a "ghost national" on the part of the founding members was more than a sign of wishful thinking because groups of EE's in Midwestern schools heard of the society and petitioned for a charter. The first new chapter was installed at Purdue University in 1906. But that organization "went on the rocks" quite early. It appears that our early members, being young, did not fully understand the workings of college administrations and had not obtained prior approval of the Purdue officialdom. The President of Purdue required that the charter be withdrawn, which was done. But those already inducted were continued as members of Eta Chapter (a chapter-at-large). In 1913, the Purdue EE administration requested a charter for a chapter on its campus and Beta was reinstated.

Gamma Chapter was installed at Ohio State University in 1907, two more, Delta at Armour Institute of Technology (now Illinois Institute of Technology) and Epsilon at Pennsylvania State College in 1909. Chapters at Case School of Applied Science (now Case Institute of Technology) and at University of Wisconsin were added in 1910. By then the national characteristics of Eta Kappa Nu were established. Still, growth was not phenomenal and continued at an average of but one chapter a year to 1916.

Scholastic standards observed soon after the founding of Eta Kappa Nu were memorialized in a mild statement written into the Constitution during the Convention of 1913. This set definite numerical limits to the proportion of each EE class that could be elected and required that the bylaws of each chapter must specify definite scholarship standards subject to approval by the National Executive Council. In general, these standards were specified in grade points. Then, during the latter part of the 1930's, our national officers recommended that each college chapter set the upper fourth of the junior EE class and upper third of the senior EE class as eligible for membership. In 1947, The Association of College Honor Societies (ACHS) opened up membership to specialized or discipline-specific honor societies and Eta Kappa Nu joined the Association of College Honor Societies that year. ACHS recommended that the

scholarship guidelines limiting membership to the upper third be written into our constitution, and the scholarship guidelines became mandatory.

From the first year of existence, the new organization began to publish a newsletter or magazine. From 1905 through 1908, the organization published a newsletter entitled *The Electric Field*. In 1909, *The Bridge* began publication to act as a vehicle of communication between students and alumni. In fact, it was the idea of the founders, carried through to this day, that Eta Kappa Nu should be more than a campus organization—a student is a member of a campus chapter at most for two years; but one remains an alumnus for the remainder of their life!

During the early part of the organization, several alumni chapters were established to keep members involved in the organization after graduation. These alumni chapters have provided continuous support for the national organization and have helped create and administer many of our HKN award programs, in addition to supporting relations with their local college chapters.

To the ten founders, the adoption of a Constitution, the choosing of a name and insignia, and the formulation of a ritual was a serious undertaking. But little did those inspired young men then realize how seriously their lead would be followed—that they had given life and purpose to a society adding standards and prestige to an honored profession; that one hundred years later Eta Kappa Nu would have grown to a record of 211 college chapters and nearly 200,000 inducted members.

Founders Plaque and memorial boulder commemorating the founding of the Eta Kappa Nu Honor Society and its initial charter members were placed in front of the electrical engineering building on the University of Illinois campus, November 9, 1929.

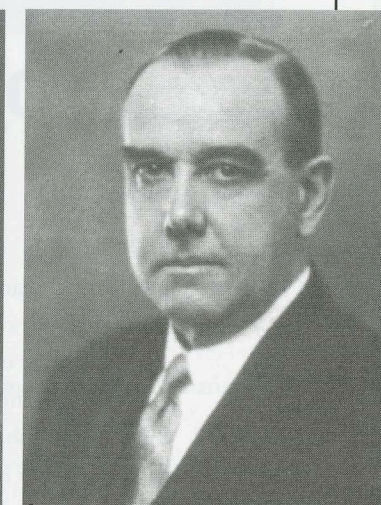


MAURICE LEROY CARR

April 17, 1877 - July 13, 1942

"Until the last, he was intensely interested in the society which he founded. A dreamer who made his dreams come true, he even had dreams for the future of Eta Kappa Nu. His untimely passing challenges us to see that his dreams of the future of our society come true. A real friend, the memory of whom can never die."

ALTON B. ZERBY



At left, picture of Maurice L. Carr taken around the time of Eta Kappa Nu's founding in 1905. At right, HKN's founder shown later in life.

Two hundred and eleven college chapters all over the United States are today a living monument to the memory of Maurice L. Carr. Because of his dream one hundred years ago, some 200,000 electrical and computer engineers have known the rewards of association with other engineers mutually interested in the promotion of excellence in electrical and computer engineering education and high ideals and service within the profession.

"ML" Carr was born near Avon, Illinois, and was graduated from Avon High School in 1895. Early in life, he exhibited a desire to build things and after his graduation he helped his father connecting instruments and building short transmission lines for a small telephone company in which the elder Carr had an interest.

After brief service during the Spanish-American War, Carr took his mustering-out money and enrolled in the Engineering College of the University of Illinois. He ran out of money the next year and spent three years building more telephone lines, working in an electric meter factory, and even teaching at Avon High School. In 1902 he was able to return to college, where he helped in the Physics Laboratory and worked for a utility company during vacations to see him through.

"ML" was graduated in the spring of 1905 with honors and

was elected to Tau Beta Pi and Sigma Xi. The next year he served as an assistant for the Department of Physics in the experiment station at Urbana, where he worked on the collapse of boiler flues under external pressure and high temperature. He also worked on high temperature measurements—a field then in its infancy—but left at the end of the year to assume charge of the electrical testing department of the Peoria Gas and Electric Company.

In 1907 Carr affiliated himself with the Underwriters' Laboratories in Chicago, where he was employed for 13 years. He pioneered in the fire testing of building materials and introduced quantitative methods to the field. He originated the time-rating of fire protective devices as well as a method of testing safes. During this time he served as an instructor in the Lewis Institute Night School for four years.

In 1930 he joined the Pittsburgh Testing Laboratory in Pittsburgh, Pennsylvania, and from 1932 until his death ten years later he was Director of Research.

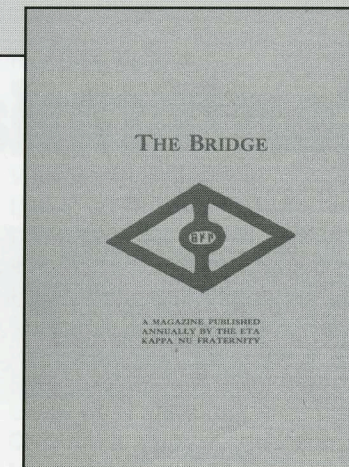
Maurice Carr was given the Professional EE degree by his alma mater in 1911. He was a member of the National Fire Protection Association, the American Society of Heating and Ventilating Engineers, and a Fellow of the American Association for the Advancement of Science.

Historical MILESTONES

of HKN's First Century

- 1904** First formal planning meeting on September 23, 1904
Eta Kappa Nu chosen for name, taken from the first, fourth, and last letters of "HAEKTPON" the greek word for amber or electron.
The Wheatstone Bridge chosen as the symbol of the society
First Membership qualifications and criteria defined
First Initiation Ritual written
First Induction held on Oct. 28, 1904. Founding date of the Organization
- 1905** First Seal and plate of organization created
First Membership Certificates produced
First Publication "The Electric Field" Volume 1, published annually
University of Illinois organization designated as Alpha Chapter of an envisioned national organization
First 'national' convention and national officers elected
- 1906** First Expansion chapter ("Beta") installed at Purdue. Subsequently closed and reinstalled in 1913
- 1908** First Alumni chapter established at Purdue
- 1909** First issue of "The Eta Kappa Nu Yearbook", labeled as volume 1, no 1.
- 1910** First Honorary Member
First issue of "The Bridge" magazine, the new name for the Eta Kappa Nu Yearbook
- 1911** Second issue of "The Bridge" adjusts volume number to be volume 7 to account for the four issues of "The Electric Field" 1905-08, the 1909 issue of the Yearbook, and the 1910 issue of The Bridge. Bridge published annually.
- 1913** First general revision of the constitution, which now includes scholastic grade point standards
- 1920** Bridge magazine published quarterly
- 1927** HKN Shield and coat-of-arms adopted
- 1928** National Advisory Board created.
Executive Secretary position created as the first paid national officer
J. A. Umhoefer elected as First Executive Secretary
- 1930** Biennial Convention Authorized
- 1931** Leland A. Spangler elected as second Executive Secretary
- 1932** College Visitation Program begins
Outstanding Chapter Activities Award established
- 1934** Alton B. Zerby elected executive secretary and serves until 1957. HKN national HQ office moves to Dillsburg, PA.

The first issue of *The Bridge* magazine was published in 1910. It was 6x8.5 inches and contained 62 pages. It listed the national officers and officers of all five chapters at the time as well as a complete list of all members and addresses. Included were several articles written by the HKN founders and others. The 1910 edition did not contain a volume number, but has retroactively been labeled as Volume 6. The 1911 issue of *The Bridge* was correctly labeled as volume 7.



- 1936** Outstanding Young Electrical Engineer Award program established. Administered by the NY alumni chapter
- 1942** M. L. Carr died
- 1947** HKN Admitted to the Association of College Honor Societies
- 1950** Eminent Member program established
- 1951** HKN incorporates in the state of Delaware as the Eta Kappa Nu Association
- 1954** National Convention and 50-year anniversary held at University of Illinois
- 1955** First HKN Sound Movie produced as a guidance film for potential engineers
- 1957** Paul Hudson elected as executive secretary, serves until 1988. HKN headquarters office moves back to Urbana, IL
HKN receives 501(c)7 non-profit tax exempt status from the IRS as a fraternal and social organization
- 1958** Organization structure changes to create a board of directors with a president, VP and executive secretary and four directors. Replaces the National Advisory Board (NAB).
Amendment to Delaware articles of incorporation filed.
- 1965** Outstanding EE Student award program established. Administered by the LA alumni chapter. Later renamed the Zerby-Koerner Outstanding ECE Student award.
- 1970** Second HKN movie produced entitled "Engineering: The challenge of the Future"
- 1971** Distinguished Service Award program established
- 1972** Distinguished Young EE Teacher Award established, Later renamed the C. Holmes MacDonald Outstanding Teacher Award
- 1984** Norman R. Carson Outstanding EE Junior Award program established.
- 1988** Bob Betten elected as the new executive secretary and serves until 1999. HKN headquarters moves to Rolla, MO
- 1998** Strategic Planning Meeting held to recast and revitalize HKN organization. Proposes sweeping changes in organization structure, leadership, constitution and finances.
- 2000** Ron Spanke named to replace Bob Betten as executive secretary. Headquarters office moves to Lisle, IL
Scope of organization officially expanded to include Electrical and Computer Engineering
- 2001** Amended and Restated articles of incorporation are filed with the state of Delaware to emphasize the focus of the organization as promoting excellence in electrical and computer engineering education and to add language to enable future charitable organization status.
- 2002** New constitution passed to redefine organization. Board expanded to six directors. Executive Secretary is eliminated.
Executive Director position is defined as an employee reporting to the board. Dr. Spanke assumes new executive director position. Executive council now consists of President, Vice-President, and Past President
First National Student Leadership Conference held, hosted by Nu chapter at Iowa State University.
- 2004** HKN receives 501(c)3 non-profit status from the IRS as a charitable and educational organization enabling contributions to be tax-deductable
Eta Kappa Nu Centennial banquet and centennial student leadership conference held at University of Illinois.

Centennial Chapter Directory

Eta Kappa Nu grew from an idea into a working chapter and has experienced a growth to 211 chapters throughout the past century. For such a society to become the vigorous organization that it is now requires that it be far more than a passing fad. That our founders had faith in their vision can clearly be seen today by the proliferation of Eta Kappa Nu and its stature in all Universities and in the electrical and computer engineering profession.

| | Chapter | University | Installed | | | | |
|----|--------------|-----------------------------------|-------------|----|---------------|-----------------------------------|------------|
| 1 | Alpha | University of Illinois - Urbana | 10/28/1904 | 49 | Gamma Beta | Northeastern University | 03/04/1950 |
| 2 | Beta | Purdue University | 1906 & 1913 | 50 | Gamma Gamma | Clarkson College | 04/29/1950 |
| 3 | Gamma | Ohio State University | 1907 | 51 | Gamma Delta | Worcester Polytechnic Institute | 06/02/1950 |
| 4 | Delta | Illinois Institute of Technology | 1909 | 52 | Gamma Epsilon | Rutgers University | 06/03/1950 |
| 5 | Epsilon | Pennsylvania State University | 12/04/1909 | 53 | Gamma Zeta | Michigan State University | 03/13/1951 |
| 6 | Zeta | Case Western Reserve University | 02/03/1910 | 54 | Gamma Eta | Syracuse University | 04/14/1951 |
| 7 | Theta | University of Wisconsin | 04/30/1910 | 55 | Gamma Theta | University of Missouri-Rolla | 04/26/1952 |
| 8 | Iota | University of Missouri-Columbia | 06/12/1911 | 56 | Gamma Iota | University of Kansas | 05/24/1952 |
| 9 | Kappa | Cornell University | 01/27/1912 | 57 | Gamma Kappa | New Jersey Inst. of Technology | 05/23/1952 |
| 10 | Lambda | University of Pennsylvania | 03/12/1913 | 58 | Gamma Lambda | Columbia University | 07/01/1954 |
| 11 | Mu | University of California-Berkeley | 12/18/1915 | 59 | Gamma Mu | Texas A & M University | 10/08/1955 |
| 12 | Nu | Iowa State University | 05/13/1916 | 60 | Gamma Nu | Texas Tech University | 04/21/1956 |
| 13 | Xi | Auburn University | 04/12/1920 | 61 | Gamma Xi | Univ of Maryland-College Park | 05/25/1957 |
| 14 | Omicron | University of Minnesota | 05/22/1920 | 62 | Gamma Omicron | Southern Methodist University | 05/06/1957 |
| 15 | Pi | Oregon State University | 12/19/1921 | 63 | Gamma Pi | University of Virginia | 05/20/1957 |
| 16 | Rho | University of Colorado | 03/04/1922 | 64 | Gamma Rho | South Dakota State University | 11/16/1957 |
| 17 | Sigma | Carnegie-Mellon University | 05/19/1923 | 65 | Gamma Sigma | University of Utah | 01/16/1958 |
| 18 | Tau | University of Cincinnati | 05/26/1923 | 66 | Gamma Tau | North Dakota State University | 04/24/1958 |
| 19 | Upsilon | University of Southern California | 06/06/1925 | 67 | Gamma Upsilon | Johns Hopkins University | 05/09/1958 |
| 20 | Phi | Union College | 02/20/1926 | 68 | Gamma Phi | University of Arkansas | 01/19/1959 |
| 21 | Chi | Lehigh University | 05/22/1926 | 69 | Gamma Chi | New Mexico State University | 05/09/1959 |
| 22 | Psi | University of Texas-Austin | 04/24/1928 | 70 | Gamma Psi | Lafayette College | 05/16/1959 |
| 23 | Omega | Oklahoma State University | 02/15/1930 | 71 | Gamma Omega | Mississippi State University | 12/10/1959 |
| 24 | Beta Alpha | Drexel University | 05/01/1935 | 72 | Delta Alpha | Wayne State University | 01/18/1960 |
| 25 | Beta Beta | Brooklyn Polytechnic Institute | 05/01/1936 | 73 | Delta Beta | Lamar University-Beaumont | 05/13/1960 |
| 26 | Beta Gamma | Michigan Technological University | 06/06/1936 | 74 | Delta Gamma | Louisiana Tech University | 05/13/1960 |
| 27 | Beta Delta | University of Pittsburgh | 05/14/1937 | 75 | Delta Delta | University of Denver | 05/21/1960 |
| 28 | Beta Epsilon | University of Michigan | 04/24/1937 | 76 | Delta Epsilon | Ohio University | 05/21/1960 |
| 29 | Beta Zeta | New York University | 05/01/1937 | 77 | Delta Zeta | Washington University-St. Louis | 05/19/1960 |
| 30 | Beta Eta | North Carolina State University | 05/28/1938 | 78 | Delta Eta | University of Massachusetts | 05/21/1960 |
| 31 | Beta Theta | Massachusetts Inst of Technology | 04/15/1939 | 79 | Delta Theta | Pratt Institute | 05/21/1960 |
| 32 | Beta Iota | University of Iowa | 05/05/1939 | 80 | Delta Iota | Louisiana State University | 04/16/1961 |
| 33 | Beta Kappa | Kansas State University | 05/06/1939 | 81 | Delta Kappa | University of Maine | 05/12/1961 |
| 34 | Beta Lambda | Virginia Tech | 05/18/1940 | 82 | Delta Lambda | Duke University | 05/14/1961 |
| 35 | Beta Mu | Georgia Institute of Technology | 05/17/1941 | 83 | Delta Mu | Villanova University | 05/16/1961 |
| 36 | Beta Nu | Rensselaer Polytechnic Inst. | 05/11/1942 | 84 | Delta Nu | University of Alabama | 04/14/1962 |
| 37 | Beta Xi | University of Oklahoma | 05/16/1942 | 85 | Delta Xi | Air Force Institute of Technology | 02/02/1962 |
| 38 | Beta Omicron | Marquette University | 01/21/1945 | 86 | Delta Omicron | University of New Mexico | 04/08/1962 |
| 39 | Beta Pi | City College of New York | 02/16/1946 | 87 | Delta Pi | Colorado State University | 05/18/1962 |
| 40 | Beta Rho | West Virginia University | 04/02/1947 | 88 | Delta Rho | University of North Dakota | 05/11/1962 |
| 41 | Beta Sigma | University of Detroit | 06/21/1947 | 89 | Delta Sigma | University of Notre Dame | 04/14/1962 |
| 42 | Beta Tau | Northwestern University | 01/24/1948 | 90 | Delta Tau | Univ of Southwestern Louisiana | 05/10/1962 |
| 43 | Beta Upsilon | University of Kentucky | 04/24/1948 | 91 | Delta Upsilon | Bradley University | 05/12/1962 |
| 44 | Beta Phi | University of Tennessee | 12/11/1948 | 92 | Delta Phi | University of South Carolina | 05/17/1962 |
| 45 | Beta Chi | S. Dakota School of Mines & Tech | 05/11/1949 | 93 | Delta Chi | Cooper Union | 12/19/1962 |
| 46 | Beta Psi | University of Nebraska | 05/14/1949 | 94 | Delta Psi | St. Louis University | 04/01/1963 |
| 47 | Beta Omega | University of Connecticut | 05/21/1949 | 95 | Delta Omega | University of Hawaii at Manoa | 04/09/1963 |
| 48 | Gamma Alpha | Manhattan College | 01/28/1950 | 96 | Epsilon Alpha | Cleveland State University | 05/01/1963 |
| | | | | 97 | Epsilon Beta | Arizona State University | 05/04/1963 |

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|-----|-----------------|------------------------------------|------------|-----|---------------|-------------------------------------|------------|
| 98 | Epsilon Gamma | University of Toledo | 04/11/1963 | 160 | Theta Rho | Rice University | 01/30/1981 |
| 99 | Epsilon Delta | Tufts University | 01/11/1964 | 161 | Theta Sigma | University of Bridgeport | 04/01/1981 |
| 100 | Epsilon Epsilon | University of Houston | 05/15/1964 | 162 | Theta Tau | University of Michigan-Dearborn | 04/18/1981 |
| 101 | Epsilon Zeta | Univ of Massachusetts-Lowell | 12/12/1964 | 163 | Theta Upsilon | Lawrence Institute of Technology | 01/16/1982 |
| 102 | Epsilon Eta | Rose-Hulman Institute of Tech. | 10/27/1965 | 164 | Theta Phi | Virginia Military Institute | 04/07/1982 |
| 103 | Epsilon Theta | California State Univ.-Long Beach | 02/13/1965 | 165 | Theta Chi | Univ of CO-Colorado Springs | 04/23/1982 |
| 104 | Epsilon Iota | San Jose State University | 05/15/1965 | 166 | Theta Psi | University of Nevada-Reno | 04/15/1982 |
| 105 | Epsilon Kappa | University of Miami | 12/04/1965 | 167 | Theta Omega | University of the Pacific | 11/12/1982 |
| 106 | Epsilon Lambda | Vanderbilt University | 04/22/1966 | 168 | Iota Alpha | Univ of Alabama at Birmingham | 03/25/1983 |
| 107 | Epsilon Mu | University of Texas at Arlington | 04/30/1966 | 169 | Iota Beta | Milwaukee School of Engineering | 02/10/1984 |
| 108 | Epsilon Nu | California State University-LA | 05/14/1966 | 170 | Iota Gamma | University of California-LA | 03/29/1984 |
| 109 | Epsilon Xi | Wichita State University | 05/22/1966 | 171 | Iota Delta | Stevens Institute of Technology | 05/06/1984 |
| 110 | Epsilon Omicron | University of Delaware | 05/20/1966 | 172 | Iota Epsilon | University of Hartford | 11/03/1984 |
| 111 | Epsilon Pi | Princeton University | 05/01/1967 | 173 | Iota Zeta | California St. University at Chico | 02/22/1985 |
| 112 | Epsilon Rho | Tennessee Technological Univ | 05/12/1967 | 174 | Iota Eta | University of Dayton | 12/07/1985 |
| 113 | Epsilon Sigma | University of Florida | 12/01/1967 | 175 | Iota Theta | Portland State University | 03/08/1986 |
| 114 | Epsilon Tau | Univ of California -Santa Barbara | 05/29/1969 | 176 | Iota Iota | Rochester Institute of Technology | 04/05/1986 |
| 115 | Epsilon Upsilon | Tuskegee University | 11/26/1969 | 177 | Iota Kappa | Montana State University | 04/24/1986 |
| 116 | Epsilon Phi | California Polytechnic St. Univ. | 04/13/1971 | 178 | Iota Lambda | University of Illinois-Chicago | 11/24/1986 |
| 117 | Epsilon Chi | University of Louisville | 04/24/1971 | 179 | Iota Mu | George Mason University | 04/04/1987 |
| 118 | Epsilon Psi | University of Santa Clara | 05/01/1971 | 180 | Iota Nu | Gannon University | 04/28/1987 |
| 119 | Epsilon Omega | University of Mississippi | 05/04/1971 | 181 | Iota Xi | University of Arizona | 03/05/1988 |
| 120 | Zeta Alpha | Monmouth College | 05/05/1971 | 182 | Iota Omicron | St. Cloud State University | 01/04/1988 |
| 121 | Zeta Beta | Texas A & I University | 05/08/1971 | 183 | Iota Pi | California Institute of Technology | 04/15/1989 |
| 122 | Zeta Gamma | University of Rhode Island | 05/10/1971 | 184 | Iota Rho | Lakefront | 04/22/1989 |
| 123 | Zeta Delta | University of Texas at El Paso | 05/14/1971 | 185 | Iota Sigma | Temple University | 05/12/1989 |
| 124 | Zeta Epsilon | Florida Institute of Technology | 05/14/1971 | 186 | Iota Tau | University of District of Columbia | 05/04/1989 |
| 125 | Zeta Zeta | University of Akron | 05/15/1971 | 187 | Iota Upsilon | University of Washington | 05/25/1989 |
| 126 | Zeta Eta | Brigham Young University | 05/26/1971 | 188 | Iota Phi | United States Military Academy | 05/09/1991 |
| 127 | Zeta Theta | California State Polytechnic Univ. | 06/03/1972 | 189 | Iota Chi | Oakland University | 11/10/1990 |
| 128 | Zeta Iota | Clemson University | 10/08/1972 | 190 | Iota Psi | New York Institute of Technology | 05/01/1991 |
| 129 | Zeta Kappa | Tennessee State University | 02/01/1973 | 191 | Iota Omega | California State Univ -Fullerton | 05/01/1991 |
| 130 | Zeta Lambda | University of Texas | 04/03/1973 | 192 | Kappa Alpha | Northern Illinois University | 05/01/1991 |
| 131 | Zeta Mu | Northrup Institute of Technology | 05/01/1973 | 193 | Kappa Beta | Wilkes University | 12/06/1991 |
| 132 | Zeta Nu | University of Tulsa | 05/18/1973 | 194 | Kappa Gamma | University of Alaska Fairbanks | 03/01/1991 |
| 133 | Zeta Xi | Univ of Massachusetts-Dartmouth | 02/04/1974 | 195 | Kappa Delta | Florida International University | 04/03/1992 |
| 134 | Zeta Omicron | West Virginia Institute of Tech. | 03/29/1974 | 196 | Kappa Epsilon | Binghamton University | 11/20/1992 |
| 135 | Zeta Pi | University of New York at Buffalo | 04/05/1974 | 197 | Kappa Zeta | New York Institute of Technology | 12/11/1992 |
| 136 | Zeta Rho | University of New Haven | 12/07/1974 | 198 | Kappa Eta | University of San Diego | 12/11/1993 |
| 137 | Zeta Sigma | Polytechnic Univ. of NY- Brooklyn | 12/09/1974 | 199 | Kappa Theta | University of Wisconsin-Platteville | 02/26/1994 |
| 138 | Zeta Tau | San Diego State University | 12/13/1974 | 200 | Kappa Iota | Embry-Riddle Aeronautical Univ | 04/24/1994 |
| 139 | Zeta Upsilon | Old Dominion University | 11/21/1975 | 201 | Kappa Kappa | University of Texas at Dallas | 11/17/1995 |
| 140 | Zeta Phi | Tri-State University | 12/01/1975 | 202 | Kappa Lambda | University of Memphis | 12/15/1995 |
| 141 | Zeta Chi | University of Central Florida | 12/06/1975 | 203 | Kappa Mu | Capitol College | 05/02/1997 |
| 142 | Zeta Psi | Southern University A & M | 01/13/1976 | 204 | Kappa Nu | University of North Florida | 05/17/1997 |
| 143 | Zeta Omega | University of California-Irvine | 02/21/1976 | 205 | Kappa Xi | University of South Florida | 04/25/1998 |
| 144 | Theta Alpha | Tulane University | 03/13/1976 | 206 | Kappa Omicron | State University of New York | 10/12/1999 |
| 145 | Theta Beta | University of Portland | 03/30/1977 | 207 | Kappa Pi | Boise State University | 10/27/2001 |
| 146 | Theta Gamma | Fairleigh-Dickinson University | 04/22/1977 | 208 | Kappa Rho | Purdue Univ at IUPUI | 05/11/2002 |
| 147 | Theta Delta | Naval Postgraduate School | 12/07/1977 | 209 | Kappa Sigma | Boston University | 03/21/2003 |
| 148 | Theta Epsilon | Kettering University | 03/16/1978 | 210 | Kappa Tau | Baylor University | 03/28/2003 |
| 149 | Theta Zeta | University of Colorado-Denver | 04/01/1978 | 211 | Kappa Upsilon | Univ. of Texas at San Antonio | 11/19/2004 |
| 150 | Theta Eta | University of Alabama-Huntsville | 04/29/1978 | | | | |
| 151 | Theta Theta | Polytech Univ. of NY -Farmington | 04/27/1979 | | | | |
| 152 | Theta Iota | George Washington University | 03/02/1979 | | | | |
| 153 | Theta Kappa | California State University-Fresno | 05/04/1979 | | | | |
| 154 | Theta Lambda | University of South Alabama | 11/30/1979 | | | | |
| 155 | Theta Mu | SUNY at Stony Brook | 12/07/1979 | | | | |
| 156 | Theta Nu | N. Carolina Agr. & Tech State Univ | 04/11/1980 | | | | |
| 157 | Theta Xi | Norwich University | 04/28/1980 | | | | |
| 158 | Theta Omicron | Southern IL Univ.-Edwardsville | 05/06/1980 | | | | |
| 159 | Theta Pi | Univ of Missouri-Kansas City | 05/10/1980 | | | | |
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Eta Chapter is a chapter-at-large which provides membership for outstanding students in colleges which do not have sufficient enrollment to support an active chapter. Eta Chapter has no formal organization and has no vote in the convention. Many chapters start out as an Eta chapter before becoming a full-fledged installed chapter.



HKN CENTENNIAL CELEBRATION

100 Years of Honoring Excellence

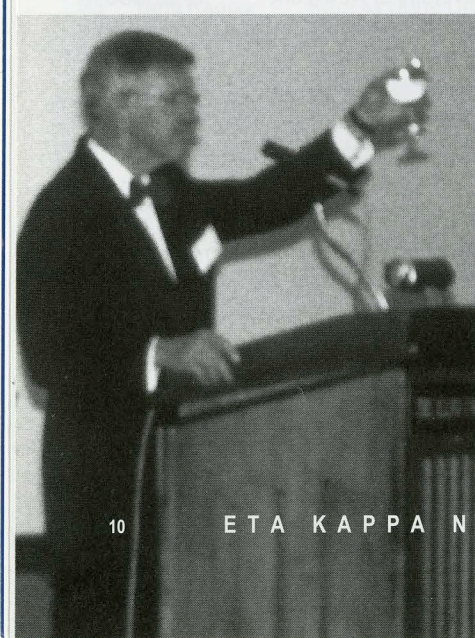
by Ron A. Spanke, Ω '82

The historic finally came. It's not often that one gets to celebrate a 100-year anniversary, and Eta Kappa Nu celebrated its centennial in style on Saturday, October 23, 2004. HKN returned to the University of Illinois, the birthplace of our organization, to commemorate the October 28, 1904 founding of our society. One of the largest HKN functions ever held, the centennial banquet was attended by 244 students, alumni, and invited dignitaries. This event culminated years of planning and preparations by

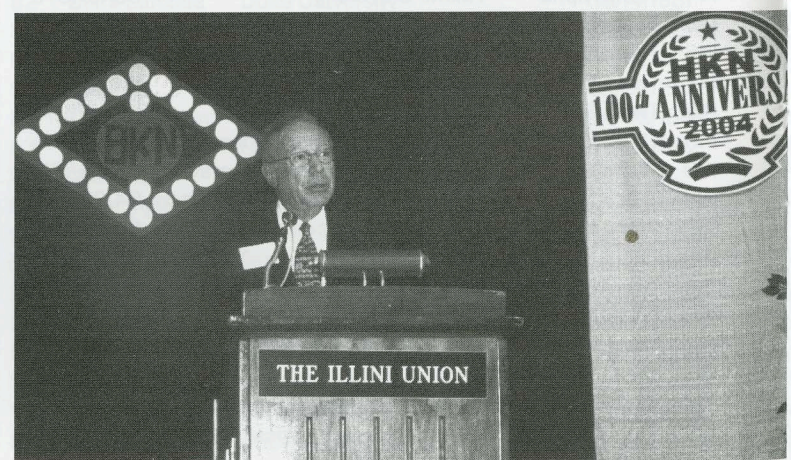
the board of directors and the headquarters staff, and it was a momentous and memorable occasion for all who attended.

A GRAND AFFAIR

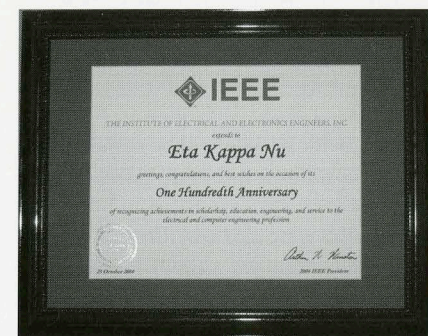
The evening festivities began with a cocktail reception and hors-d'oeuvres. A live harpist serenaded attendees during the reception and dinner. When the doors to the banquet hall opened at seven o'clock, the room had been decorated in black and gold drape and



Left - HKN Centennial Committee chair Dick Gowen leads the banquet in a centennial toast to the founders and members of Eta Kappa Nu.



Right - 2004-2005 HKN President Karl Martersteck reflects on the past and future of the Eta Kappa Nu organization.



Cleon Anderson (left), 2004 President of the IEEE and Fern Katronetsky (right) Executive Director of the IEEE Foundation present HKN President Karl Martersteck with certificates of congratulations on the HKN centennial. The framed certificates from IEEE and the IEEE Foundation are shown on the left and right.

turned into the HKN founders hall, with large framed portraits of HKN's ten founders hanging along the walls. As executive director, I had the privilege to serve as master of ceremonies for the centennial evening festivities.

CENTENNIAL TOAST

Dr. Richard Gowen, chair of the centennial committee, was invited to lead the banquet in the centennial toasts. Gowen, an HKN eminent member and a past president, noted that on October 28, 1904, ten students met to embrace the vision of our founder, Maurice L. Carr, to create an organization to recognize fellow students who possess the qualities to become leaders of their profession. They gathered for the first induction ceremony of Eta Kappa Nu.

Gowen asked all to rise and charge their glasses to join in two centennial toasts. First was a toast to the founders of Eta Kappa Nu for their vision of a society to honor individuals judged most likely to become leaders of their profession. To the founders!! Second was a toast to the century of members of Eta Kappa Nu, whose knowledge and leadership have led our profession to enhance the quality of life for peoples throughout the world. To our members!!

Dinner was served and everyone enjoyed a selection of prime rib, salmon, herb-roasted chicken or a vegetable entrée.

WELCOME BACK TO UNIVERSITY OF ILLINOIS

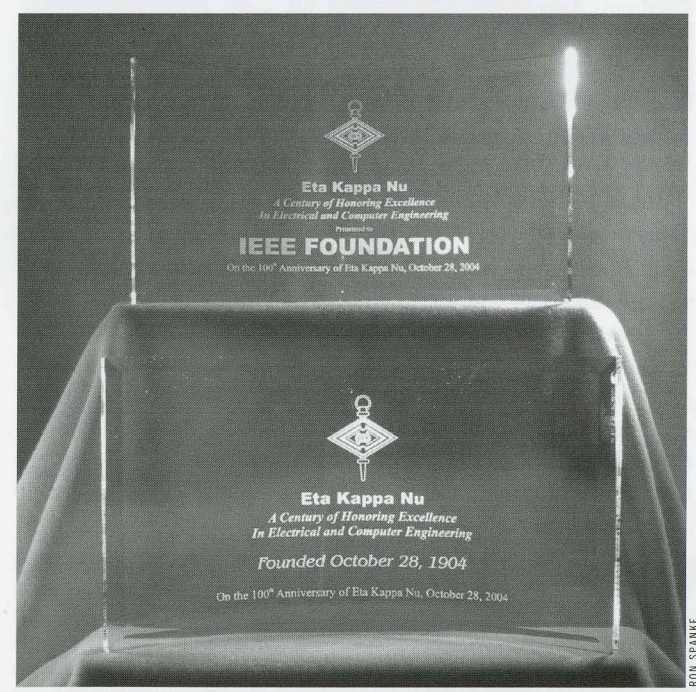
After dinner, the centennial program began with welcoming remarks from Dr. Chet Gardner, Vice President of Academic Affairs at the University of Illinois. Dr. Gardner reviewed the early history of HKN on the U of I campus and its early growth at the beginning of the century. On behalf of the University of Illinois administration, he welcomed our organization back to its birthplace and thanked all present not only for joining in this centennial celebration, but also for their continued support of our remarkable profession.

PRESIDENTIAL REMARKS

Karl Martersteck, the 2004-2005 centennial president of Eta Kappa Nu shared remarks on the past and future of our organization. When the organization was founded, its original purpose focused on finding jobs and helping members get a foothold in our profession.

Since that time, the organization's goals have evolved, such that today the focus of the organization is to encourage excellence in engineering education and in achievements by students, educators, and career electrical and computer engineers for the benefit of the public. Martersteck highlighted a century of technological advances that HKN members have helped to bring about, and then postulated some of the technical challenges facing the world in the near future toward which HKN members will continue to apply their skills.

In addition to strong technical knowledge and leadership skills required of HKN members, Martersteck noted that the organization today is placing a stronger focus on the third requirement for mem-

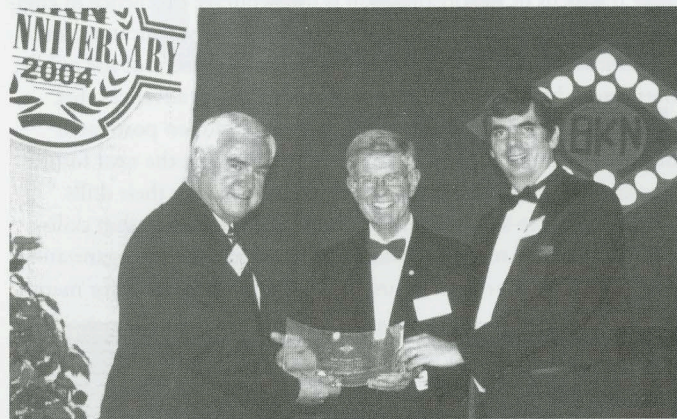


Special etched crystal mementos were designed by HKN headquarters to commemorate our centennial and were personalized for each organization. They were presented to the IEEE Foundation (shown above), IEEE, the Association of College Honor Societies, Tau Beta Pi, and the Electrical and Computer Engineering Department Heads Association (ECEDHA). A final centennial crystal memento (shown below) remains on display at the HKN National Headquarters.

bership: Character. It is this moral and ethical component which will become increasingly more important as we apply the vast power of our new technological breakthroughs in the future.

CENTENNIAL EVENTS

Dr. Richard Gowen returned to the podium as chair of the centennial committee to outline several of the events and programs that the centennial committee has planned for the centennial year. He encouraged all college chapters to build a centennial website to recognize their own chapter history and outstanding past alumni and industry associates from their chapter. He invited all chapters to become involved in the chapter centennial projects where each chapter is encouraged to undertake a meaningful project on their own campus to help celebrate the HKN centennial year. These projects



Jim Viehland (left), President of the Association of College Honor Societies, receives the etched crystal centennial memento for ACHS from centennial chair Dick Gowen and executive director Ron Spanke

should focus on developing their own chapter, campus, department or community.

Gowen acknowledged the special publication by the headquarters staff entitled *A Century of Honoring Excellence in Electrical and Computer Engineering*, which compiled the HKN history, governance, and past recipients of all HKN major awards. This special publication was distributed to all who attended the centennial banquet and is being included as part of the special centennial Bridge edition for all Bridge readers.

One of the special centennial projects was the creation of the book *Profiles in Engineering Leadership* highlighting each of the eminent members of Eta Kappa Nu. This major project was undertaken with the help of the IEEE history center and HKN headquarters and supported by a major grant from the IEEE Foundation.

Also for the Centennial, HKN will define the Eta Kappa Nu Pantheon. The Pantheon will consist of 20 individuals who were the progenitors of our profession. The composition of the HKN Pantheon will be announced at the HKN Spring Awards banquet in April, 2005. Along with this Pantheon project is a special pantheon student challenge. All undergraduate student members are invited to

submit their best guesses for the individuals who will be named to this pantheon, and there are some significant monetary prizes for those who guess the most names.

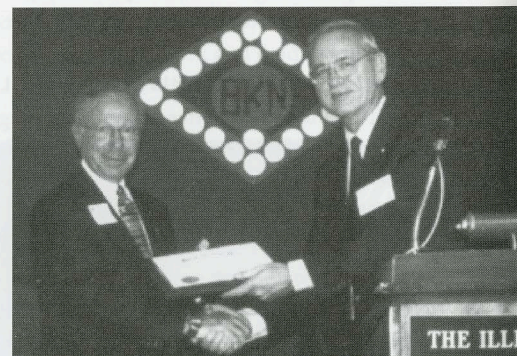
SPECIAL GUESTS

Cleon Anderson, the 2005 president of IEEE addressed the banquet to convey congratulations from the board of directors of IEEE. IEEE has over 340,000 members worldwide. Anderson stated that the visions of IEEE and HKN are similar in many respects, however HKN has the distinct characteristic of honoring outstanding students and marking them as so honored. He recalled that after his induction into HKN, he knew that he had been marked in a fitting manner and that his university and profession expected great things from him. One very meaningful difference between the two organizations for him was that to be a member of IEEE he asked to join; but to be a member of Eta Kappa Nu, he was chosen.

Fern Katronetsky, the executive director of the IEEE Foundation shared congratulations from the IEEE Foundation. Fern has also been a major contributor and administrator for the HKN OYEE award committee for many years. The IEEE Foundation is the philanthropic arm of IEEE and has sponsored several HKN projects including national student conferences and the special *Profiles in Engineering Leadership* book. Anderson and Katronetsky presented special certificates to president Martersteck from the IEEE and the IEEE Foundation congratulating HKN on its one hundredth anniversary. Dr. Spanke then presented a special etched crystal memento of HKN's centennial to IEEE and to the IEEE Foundation as a token of appreciation for the support that these organizations give to HKN.

Jim Viehland, the current president of the Association of College Honor Societies conveyed congratulations from the board of directors of ACHS. Eta Kappa Nu has been a member of ACHS since 1947. The Association of College Honor Societies exists to promote and support honor societies at colleges and universities. There are 67

Jim Froula (right), executive director of Tau Beta Pi presents president Martersteck with a certificate of congratulations on our centennial (below)



member honor societies that abide by the standards of the association. These standards include many areas and Viehland noted that ethics and integrity are important aspects of all honor societies. Viehland mentioned that several honor societies were started at the University of Illinois, beginning with HKN in 1904. Executive director Spanke presented an engraved crystal memento of our centennial to ACHS, which Viehland accepted.

Jim Froula, Tau Beta Pi's national executive director, represented Tau Beta Pi. Froula spoke briefly to convey congratulations from Tau Beta Pi to a fellow engineering honor society. Tau Beta Pi is the all-engineering honor society, and many members of HKN are also members of Tau Beta Pi. Froula noted that in 1985, TBP celebrated its centennial, and that HKN participated in that celebration at Lehigh University in Bethlehem, Pennsylvania. Froula asked all members at the banquet who were also members of Tau Beta Pi to stand and a large percentage of the attendees stood. They collectively joined with Froula to present a congratulatory plaque to HKN, which president Martersteck accepted. HKN reciprocated by presenting a special etched crystal memento of the centennial to Tau Beta Pi.

Steven Goodnick represented the Electrical and Computer Engineering Department Heads Association, ECEDHA, and conveyed their congratulations to HKN. Dr. Goodnick is the 2003 president of ECEDHA and also the chair of the EE department at Arizona State University as well as a current member on the national HKN board of directors. Goodnick noted that in the last three years HKN has been a major part of the ECEDHA annual meeting. HKN is vital to the success of our ECE departments to nurture our top students as represented by Eta Kappa Nu. Goodnick is looking forward to future collaborations and partnering between ECEDHA and HKN. ECEDHA was also presented with the special etched crystal memento from HKN commemorating its centennial.

CENTENNIAL TRIBUTES

A special tribute to all Eminent Members of Eta Kappa Nu was presented. The names of all Eminent Members ever inducted were included in the Century of Honor booklet, and those Eminent Members in attendance at the banquet were asked to come forward for a special tribute and recognition. Eminent members Henry Bachman, Donald Christiansen, and Dick Gowen were honored at the banquet.

Next, a special tribute to the past presidents of Eta Kappa Nu was presented. Dr. Spanke read off the names of ten past presidents who were in attendance that evening and asked them to step up to the stage for the special tribute. A photo of those past presidents in attendance appears in the past presidents tribute later in this magazine.

The third centennial tribute was to all past directors who have served on the HKN national board of directors. There were 20 past directors present at the centennial banquet. Their names were read off and they assembled on stage for the special tribute. A photo of these 20 past directors in attendance at the centennial appears in the past presidents tribute later in this magazine.



Steven Goodnick (left), 2003 President of the Electrical and Computer Engineering Department Heads Association (ECEDHA) receives the etched crystal centennial memento for ECEDHA from centennial committee chair Dick Gowen

CONCLUDING ACTIVITIES

The banquet concluded with the presentation of the 2004 Outstanding ECE student awards by the LA Alumni Chapter. Tom Rothwell, president of the LA alumni chapter presented the awards. Two winners were recognized this year, Matthew C. Rodrigue and Matthew R. Behrend. Both national winners came to the podium to offer their reflections and remarks.

Alpha chapter presented a special centennial video that they had compiled. The video focused on several individuals sharing their reflections on the meaning of Eta Kappa Nu and their thoughts about the HKN centennial.

Executive Director Spanke concluded the program with a charge to all HKN members to uphold the principles of scholarship, leadership, ethics and academic integrity that are the cornerstones of our society and to continue their profound contributions to our profession as HKN enters its next century.

As the banquet came to a close, the attendees were invited to continue the celebration by partaking in the customary birthday tradition. Every birthday party has one, and HKN's 100th birthday party was no exception. Attendees enjoyed a piece of the centennial birthday cake along with punch and coffee in an afterglow allowing students, alumni, and guests from across the country to interact and reflect on the centennial festivities.

Happy Birthday Eta Kappa Nu! Centennial banquet attendees enjoyed cake, coffee, and punch after the banquet while networking with students, alumni and guests from across the country.



2004 STUDENT LEADERSHIP CONFERENCE

HOSTED BY ALPHA CHAPTER – OCTOBER 22-24, 2004

by Ron A. Spanke, Ω '82

We at Alpha Chapter are honored to have eminent speakers/panelists, the HKN national board, returning HKN alumni and of course the best and brightest in the field of Electrical and Computer Engineering from our chapter and chapters nationwide. Eta Kappa Nu has held a longstanding tradition of academic excellence, leadership both on campus and in the community and dedication, and most importantly unwavering character. As Brother and co-founder Maurice Carr put it best, all members of our society are well-rounded and diligent individuals who have chosen to "not take the path of least resistance." Thus it is my honor to welcome you all here to the University of Illinois campus where this "engineering club" was founded exactly one hundred years ago and has since grown and established itself as the only Electrical and Computer Engineering Honors Society in existence with over two hundred chapters nationwide and over three thousand new members inducted each year.

This Leadership Conference is aimed at honing your already impressive skills and guiding you in an area that our technical background does not prepare us enough for. Though many of you are established leaders on campus, in our societies and also in Eta Kappa Nu, the pursuit for self-improvement is a tireless process. We hope in these next few days, after being exposed to the insights of established corporate leaders, having shared in the experiences of time-tested leaders in the business world, and having tested your ability to both lead and work with others, you will learn not only about leading others, but also about yourselves. Thank you all for sharing with us in this important event.

-Welcoming statement from Byron Man, Alpha Chapter President

Friday evening registration was the first opportunity that delegates from across the country had to begin to witness the well-planned agenda and activities that Alpha chapter had in store for them for the weekend. After registering and receiving the conference materials and conference t-shirt, one delegate was overheard exclaiming "This conference Rocks!"

Friday activities continued with tours of campus facilities leaving every thirty minutes leading up to an outdoor barbeque held under a tent set up on the Beckman Quad next to the Engineering Building where the HKN monument sits.

After the BBQ, several delegates from each of the chapters met in a Ritual committee workshop to review and discuss the proposed updating of the HKN initiation ritual. Afterwards Bradley McCredie from IBM discussed what it takes for an engineer to become a leader and what skills, character, and actions it takes to build leadership products that lead and redefine the industry. He discussed the considerations, risks and decisions that an engineer must work through to design leadership products as well as the commitment it takes to execute leadership designs.

Friday evening concluded with a photo scavenger hunt, a fun ice-breaker activity allowing students from across the country to get to

know each other better, while at the same time introducing them a little to the University campus.

HKN National President Karl Martersteck officially opened the conference on Saturday Morning and welcomed all participants. Dr. Richard Blahut, the department chair of the ECE department at UIUC likewise welcomed the brightest engineering students from across the country.

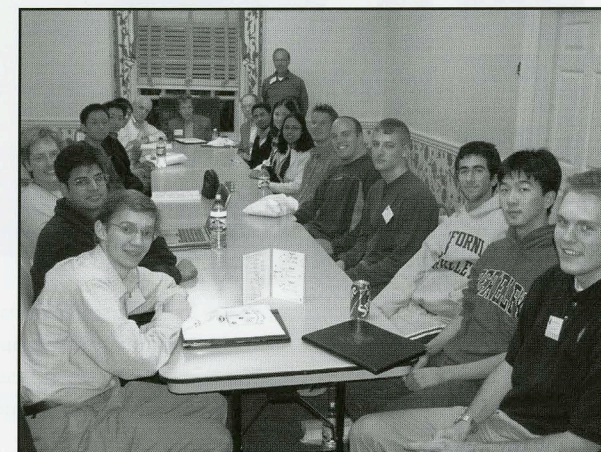
Scott Hanan, the Alpha chapter conference chair took the opportunity to welcome all of the delegates and thank several of the conference corporate sponsors. The conference would not have been possible and the conference fee would not have been so low without the support from Motorola, NVIDIA, AMD, Intel, and Microsoft. In addition,



Dr. Steve Watkins discusses opportunities to participate in public policy in the U.S. Congress

several University of Illinois organizations contributed their sponsorship to the conference including the Engineering Council, SORF, the UIUC Alumni Association, and the ECE department.

An interactive discussion panel was held focusing on the topic of moving from Learner to Leader and applying your skills to any disci-



Chapter representatives met with the national Ritual Committee to review and discuss proposed changes to the updated HKN initiation ritual coming out this year.

pline. The conference divided into two groups, with one group led by David Lemson from Microsoft and Bradley McCredie from IBM and the second group led by HKN national president Karl Martersteck and HKN past president Richard Gowen. After half an hour, the groups switched so participants could hear both viewpoints. The panel leaders each shared their experiences with leadership and offered skills and techniques to the group. They fielded various questions from the students and challenged them to step up to the next level.

Executive Director Ron Spanke led a session that described the HKN headquarters operations and the services that HKN HQ offers for chapter advisors, chapter officers, members, and alumni. He displayed the honor cords, honor stoles, and other chapter items that can be ordered from HKN HQ and gave suggestions for chapter presidents and bridge correspondents for reporting chapter activities to HQ.

Steve Watkins, HKN national director, gave an update on the Science and Technology Perspective of the U.S. Congress. Steve is currently on a one-year sabbatical in Washington, DC as an IEEE-USA Congressional Fellow on the staff of California Congressman Dana Rohrabacher and has responsibility for Science and Technology questions before the House Science Committee. His talk described opportunities to participate in public policy.

After lunch, the conference participants held a fun and creative hands-on session to model aspects of the business environment. They divided into teams to construct structures out of PVC pipe to maximize the travel time of water through the structure and meet other design criteria. Teams applied their leadership and design skills to construct some very creative structures.

Jerry Sanders presented the keynote address at the conference.

Sanders co-founded Advanced Micro Devices, AMD, a company that has since become a leading semiconductor manufacturer. Sanders spoke on innovation, competition and the foundations of leadership. He shared experiences on leadership qualities and motivated the attendees to strive to become leaders, perhaps CEOs, because they have the ability to say yes and make visions happen. After the keynote address an eminent member induction ceremony was held to induct Henry Bachman, Jerry Sanders, and Arthur Stern as HKN's newest eminent members (*see next article*).

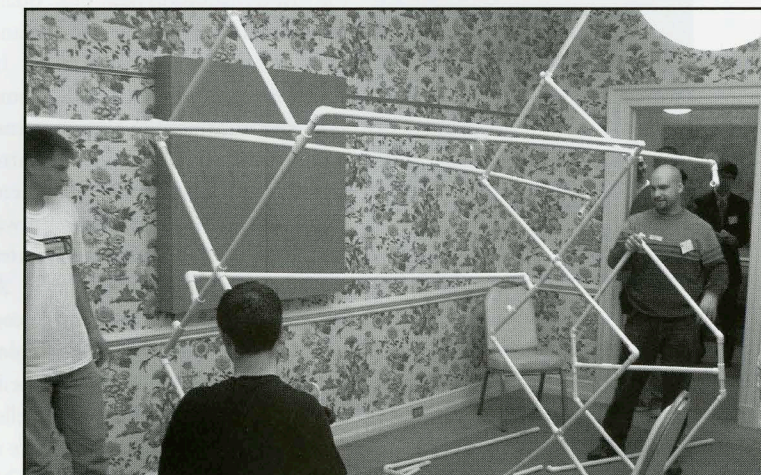
Afterwards, the attendees toured Beckman Labs and experienced state-of-the-art technology in "the CUBE" and Crash Simulator. The HKN Centennial banquet and reception concluded Saturday's activities, giving the students the chance to network with alumni and distinguished guests and experience HKN's 100-year history.

Sunday began with a leadership workshop led by Jeff Moss, program director for the Leadership Center. Attendees took an individualized leadership test and received personal feedback on their specific results. Nick Triantos from NVIDIA led a session on inspiring your co-workers, focusing on strategies to help earn peers' trust and respect and even turning a team's weakest player into one of its best performers.

The Chapter Presentations session featured invited presentations by several college chapters to discuss their best chapter practices. These chapters have been consistent winners and honorable mentions in the Outstanding Chapter Activities Award and were asked to share ideas on successful chapter programming and activities.

The conference concluded with a lunch with the HKN board, in which the national board members spread out one to a table to interact with the conference delegates to answer questions, share national perspectives and to listen to chapter comments and feedback.

After lunch, HKN national president Karl Martersteck and Alpha chapter president Byron Man thanked all who had made the conference a success and thanked all attendees for participating.



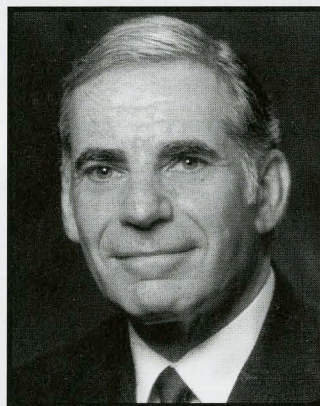
Student teams comprised of members from different chapters practiced team leadership and brainstorming skills as they constructed creative, yet functional, structures to achieve specified design criteria in the PVC pipe competition.

Alpha chapter was commended for hosting an awesome conference. As everyone headed home, we all pondered when and where the next national leadership conference might be held, as we looked forward to another opportunity for motivation and inspiration.

NEW HKN EMINENT Members Inducted

by Jutta Willmann

Eta Kappa Nu established the rank of Eminent Member in 1950 as the society's highest membership classification. It is conferred upon those select few whose contributions and attainments in the field of electrical and computer engineering have resulted in significant benefits to humankind. Three such individuals have recently been named to this rank by the Eta Kappa Nu National Board of Directors. Henry Bachman, Jerry Sanders, and Arthur Stern were inducted as HKN's newest Eminent Members on October 23, 2004 at the HKN Centennial activities in Champaign-Urbana, Illinois. Each of the newly inducted Eminent Members shared their insights and reflections at the induction ceremony.



HENRY L. BACHMAN

January 1, 1956, the Rose Bowl became the subject of the first transmission of a transatlantic telecast. As amazing as this was, periodic interference marred the transmission, and was traced to high power NIKE radar systems generating spurious emissions. Bachman, who began his career as a microwave and antenna engineer at Wheeler Laboratories in

1951, was assigned to a team to solve the problem. The challenge was to create a very selective transmission filter to block this spurious signal, but operate in a non-reflecting mode to avoid reflecting high energy levels back into the magnatron. This new concept required tremendous creative effort and, since testing occurred when TV was off the air between 11 p.m. and 6 a.m., many White Castle hamburgers as it was the only all-night place!

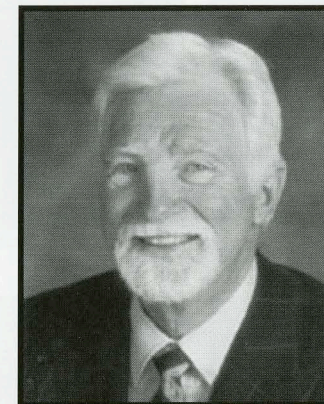
"There's no such thing as random failure. Every failure has a cause," said Bachman who throughout his career has systematically looked for the reasons behind failures. "Test a little; fix a little," Bachman explained, a seemingly simple habit that some say separates the creator from the person who maintains status

quo. Bachman advanced at Wheeler, becoming President in 1968. In 1970 Wheeler merged with Hazeltine, creating BAE SYSTEMS for which Bachman managed logistics engineering, quality, customer service and operations, engineering, market planning, business development, and special projects.

In the late 80s and early 90s when budget cuts forced defense companies to diversify, Bachman had BAE explore antenna systems. This resulted in the creation of the smart antenna with its narrow beam that had to be pointed at the transmitting mobile, thereby ultimately increasing capacity. Using existing equipment it was simple and low-cost, yet innovative. Today the smart antenna concept is embedded into today's cellular systems.

After retiring from BAE in 1995, Bachman has continued as a consultant at both BAE and at the Center for Advanced Technology for Sensor Systems at SUNY, Stony Brook. He sits on the Board of Wireless Telecom Group, and is advisory trustee, Fellow, and Distinguished Alumnus of Polytechnic University. He received his B.E.E. and M.S.E.E. from Polytechnic Institute in New York, and attended the Advanced Management program at Harvard University's School of Business.

Bachman is an AAAS Fellow, and has contributed to IEEE since college. Bachman is a Fellow, and past President of IEEE, of the IEEE Foundation, and of the IEEE Engineering Management Society, as well as a member of numerous IEEE boards and committees. Awards include the Centennial Medal (1984) and the Millennium Medal (2000).



WALTER JEREMIAH SANDERS, III

"The power to follow a dream is an intoxicant beyond belief," said Jerry Sanders, who has described himself as "an American dream kind of guy." Rising to success from poor beginnings on Chicago's south side, he earned a B.E.E. from the University of Illinois in Champaign-Urbana, IL. After a brief stint at both Douglas Aircraft (1958-59), and Motorola

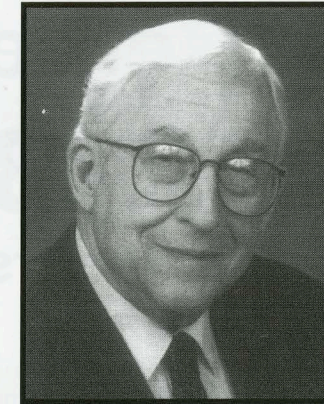
Semiconductor (1959-1961) Sanders joined Fairchild Semiconductor where he advanced into its sales and marketing management positions. When management changed, Sanders' style differed from theirs, and he was fired.

Sanders decided to form Advanced Micro Devices (AMD) of Sunnyvale, CA, to sell Intel clones as plug-in replacement parts including using the same generic part number for the component. Over the years he was sued by Intel and others, but won every lawsuit against AMD because "alpha-numerics" cannot be trademarked. In 1975 he had his first epiphany that "microprocessors rule" and were the wave of the future. Later, his second epiphany was that AMD should offer customers a product superior to its competition rather than just a clone. This resulted in the Athlon chip, the first competitor to Intel's Pentium. In 2003 he earned the support of Microsoft, and Bill Gates who said, "We think Athlon is a home run."

Recently AMD built a plant in Germany for \$3 billion, yet Sanders started AMD on \$50,000 in 1969. When developing a company, he believes it's a team effort where employees require some ownership. "People first-products and profits will follow." First of all, he explained, take care of your customers, next have the engineers develop the product, and then focus on management. Sanders honors management but he "deifies leadership" when it comes from the heart. "There is no surrender; no retreat...First do the right thing, and then do the right thing first."

At 18, while at a college party, he came to the aid of a friend who was being beaten by several young thugs. The friend took off, and Sanders was kicked and punched and dumped into a garbage can. In a coma for three days, he was given the Last Rites. Sanders repeatedly has said that the incident taught him the importance of loyalty and fair play, the uncertainty of relying on others, and the absolute necessity of relying on himself. I once said "I can die, but I can't fail ... Failure is not a possibility." Encouraging others, he tells young engineers to "dare greatly".

Sanders told the students, "After you get your education, get in the game and change the world ... The next decade will all be about information technology and you're at the core of it." Sanders received the Semiconductor Industry Association Robert N. Noyce award for industry leadership in 1991, and the American Electronics Association Medal of Achievement, 2001.



ARTHUR P. STERN

Born and raised in Hungary, Stern learned valuable life lessons when the Germans occupied Hungary and when he was imprisoned in concentration camp Bergen Belsen in 1944. Stern learned how to wiggle his way through all sorts of traps. He learned the importance of being flexible and of grabbing the opportunity of the day. Some opportunities challenge you to try something

new...others suggest you drop actions that aren't working. Upon liberation, he attended the Universities of Lausanne and Geneva in Switzerland, earning a Dipl. Ing. degree in EE in 1948 at the Swiss Federal Institute of Technology (the ETH), in Zurich, Switzerland.

Stern came to America in 1951, earning an MEE from Syracuse University, and joining General Electric. There he co-invented the single-gun color picture tube for color television. In December 1952, while sitting in the GE cafeteria, opportunity-in the person of a member of higher management-sat down unexpectedly to join Stern for lunch. Casually, at the end of lunch, he asked Stern if there was anything in their research program not being done that should've been done. "It's time to develop a transistor radio," Stern blurted out. Two days later the general manager questioned Stern about his idea. In September 1953, GE unveiled the first transistor radio.

From 1957-61 he managed the Electronic Devices Laboratory and led GE's initial efforts in integrated circuits. As Engineering Director of Martin Marietta's Electronics Division in Baltimore, MD and later as Operations Director of its subsidiary Bunker-Ramo Corp in CA, he managed the design of defense systems, mobile missile, anti-submarine, and command-control systems.

In 1966 he joined The Magnavox Company as VP, guiding development of spread spectrum communication and navigation systems. Opportunity appeared again in an unplanned conversation with another VP at Magnavox in 1968. As they discussed the imperfect navigation system of the Polaris missiles aimed at Russia, Stern offered to develop an improved navigation system. This resulted in satellite navigation and was sold to navies worldwide as well as oil tankers and other non-military businesses. Furthermore, his team contributed to the GPS concept.

Stern believes that advances in the industry have come through the amazing cooperation of numerous, ambitious individuals who communicated together about technological advances, sometimes through professional associations such as IEEE. Stern has served IEEE as Director and officer including as President of the IEEE Circuits and Systems Society. He has received the Centennial and Millennium IEEE Medals, and is a Fellow of AAAS. Currently, he devotes much time to non-profit organizations such as the California Humanitarian Foundation of Holocaust Survivors (Chairman).

Centennial TRIBUTE to Past Presidents of Eta Kappa Nu

This distinguished group of individuals have been instrumental in shaping Eta Kappa Nu into the Honor Society as it exists today. They have all given generously of their time and expertise and have given many years of their lives to HKN serving as vice president, president, and past president in addition to serving years as a national director or on the national advisory board. In addition to their elected positions, many have contributed significantly to HKN's award programs and committees far beyond their terms of office. We salute you and thank you for your zeal, faithfulness, and lifelong dedication to HKN.

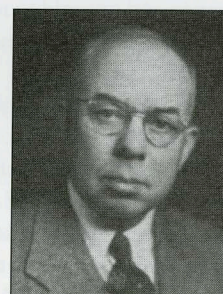


Ten presidents of Eta Kappa Nu attended the HKN Centennial Banquet in 2004 and were recognized for their Contributions.

L to R: Jim D'Arcy, Karl Martersteck, Richard Gowen, Eric Herz, Jim Melsa, Jo Waite, Alan Lefkow, Frank Weimer, Tom Rothwell, and Jack Farley.



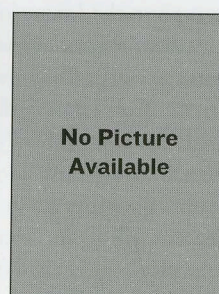
Maurice L. Carr
1905-1906



Edmund B. Wheeler
1906-1907



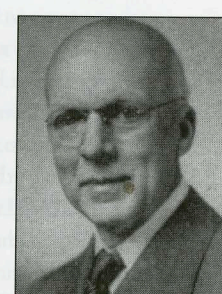
Charles E. Armstrong
1907-1908



A. F. McKee
1908-1909



Charles C. Carr
1909-1910



Clarence T. Evans
1910-1911

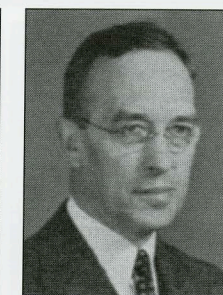


Burt T. Anderson
1911-1912

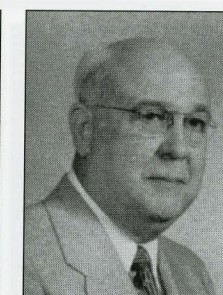


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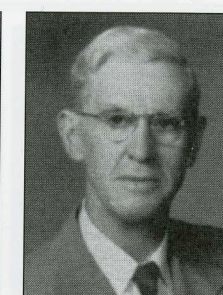
Leslie H. Haris
1912-1913



Albert H. Heitmann
1913-1914



Alton B. Zerby
1914-1915



Roscoe H. Webb
1915-1916



Bert E. Miller
1916-1917



Henry S. Cocklin
1917-1918



Francis A. Coffin
1918-1919



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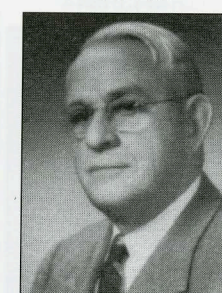
L. Paton MacGilvary
1919



Burt T. Anderson
1920-1921



John M. Spangler
1921-1922



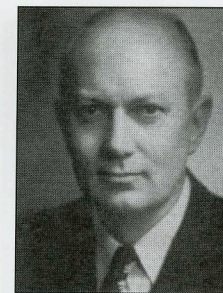
Donald G. Evans
1922-1923



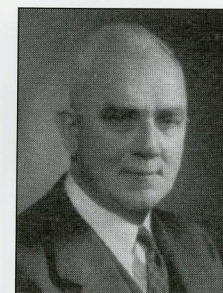
Joseph B. Kelly
1923-1924



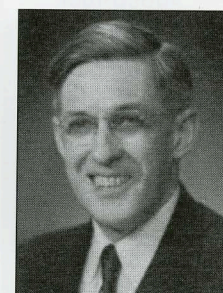
George P. Sawyer
1924-1925



Axel A. Hofgren
1925-1926



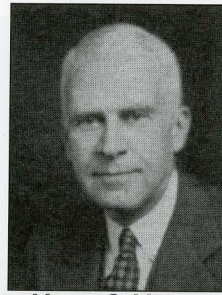
Forrest E. Brooks
1926-1927



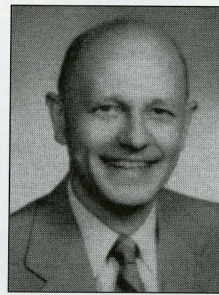
Everett S. Lee
1927-1928



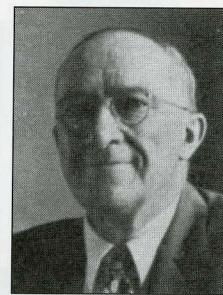
John W. Weigt
1928-1929



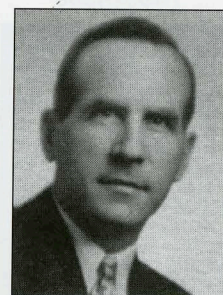
Mayne S. Mason
1929-1930



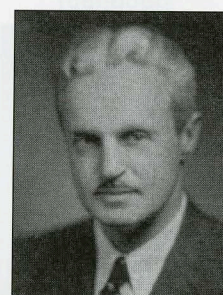
George H. Kelley
1930-1931



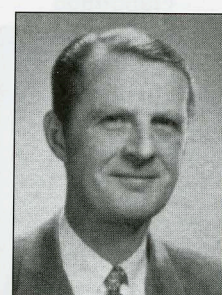
Edward F. Watson
1931-1932



John M. Newman
1932-1933



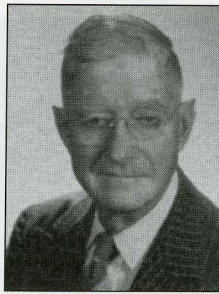
Roger I. Wilkinson
1933-1934



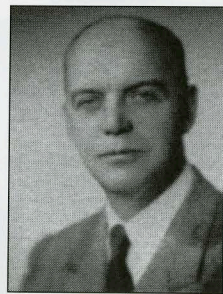
Nelson L. Best
1934-1935



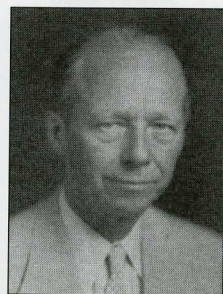
Clifford A. Faust
1935-36, 1936-37



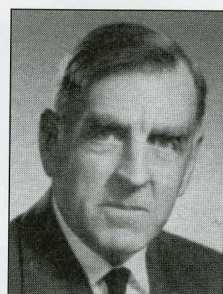
A. Morris Buck
1937-1938



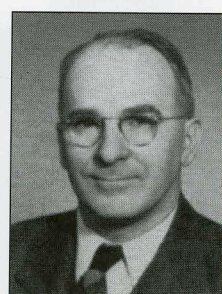
Leland A. Spangler
1938-1939



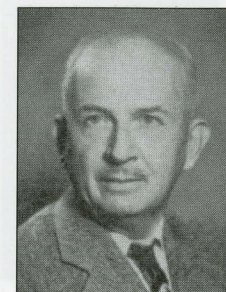
Benjamin F. Lewis
1939-1940



Francis X. Burke
1940-41, 1941-42



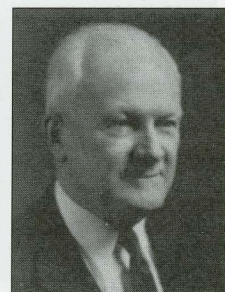
Fred E. Harrell
1942-1943



Charles B. Hoffman
1943-1944



Winston E. Kock
1944-1945



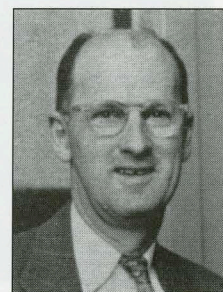
Owen H. Loynes
1945-1946



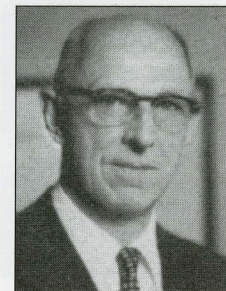
Ralph W. Fouse
1946-1947



Nelson S. Hibshman
1947-1948



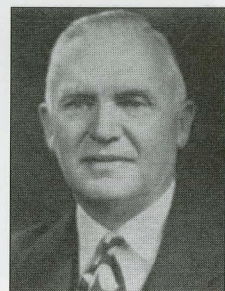
Thomas W. Williams
1948-1949



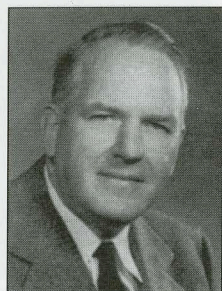
Robin Beach
1949-1950



Frank E. Sanford
1950-1951



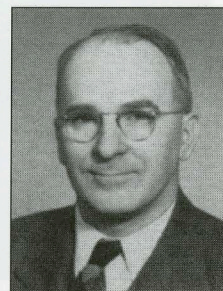
Ovid W. Eshbach
1951-1952



Edwin B. Kurtz
1952-1953



Eric T. B. Gross
1953-1954



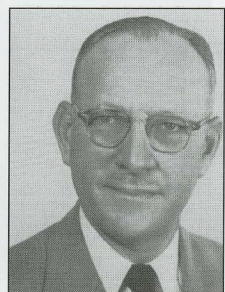
Jesse Hobson
1954-1955



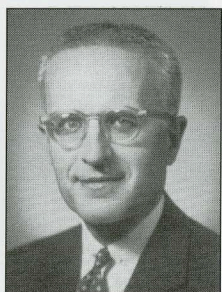
S. Reid Warren, Jr.
1955-1956



John D. Ryder
1956-1957



Carl T. Koerner
1957-1958



Larry Dwon
1958-1959



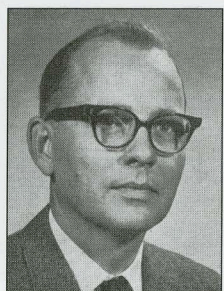
Albrecht Naeter
1959-60, 1960-61



John H. Craig
1961-1962



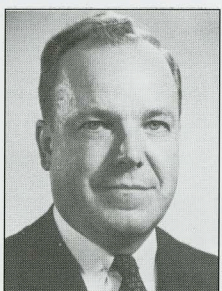
John A. M. Lyon
1962-1963



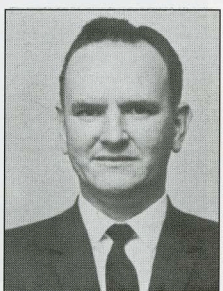
John E. Lagerstrom
1963-1964



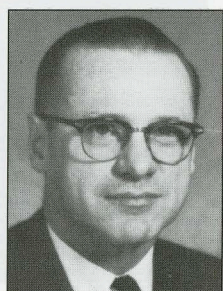
Richard J. Koopman
1964-1965



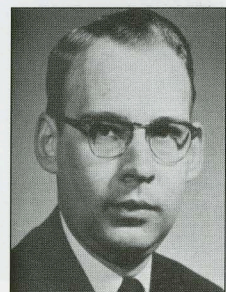
Howard H. Sheppard
1965-1966



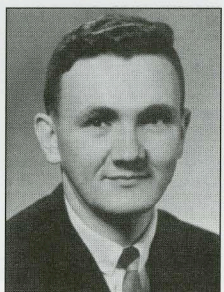
Clyde M. Hyde
1966-1967



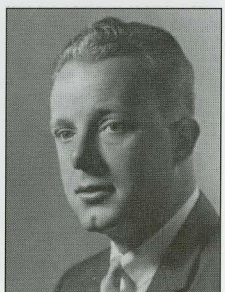
William P. Smith
1967-1968



John (Jack) E. Farley
1968-1969



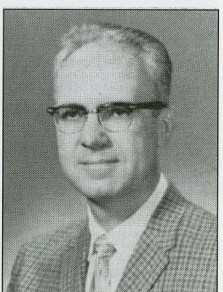
John C. Hancock
1969-1970



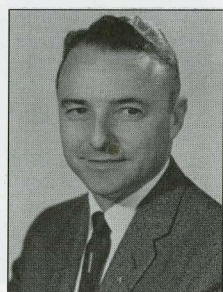
Anthony F. Gabrielle
1970-1971



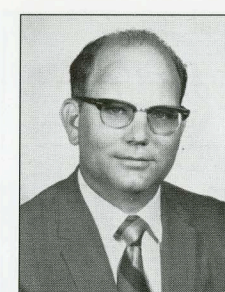
Lloyd B. Cherry
1971-1972



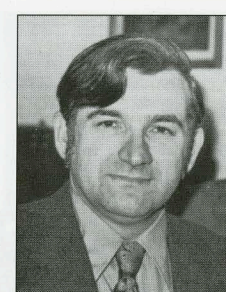
Frank C. Weimer
1972-1973



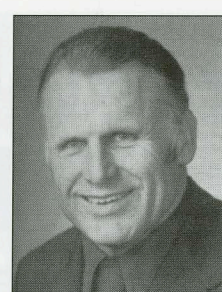
William E. Murray
1973-1974



William A. Klos
1974-1975



Chalmers M. Butler
1975-1976



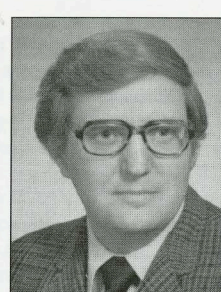
Earl D. Eyman
1976-1977



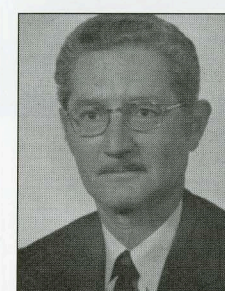
Marcus D. Dodson
1977-1978



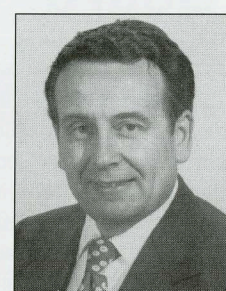
Albert Hauser
1978-1979



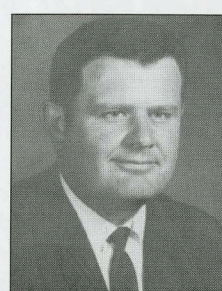
Alan R. Stoudinger
1979-1980



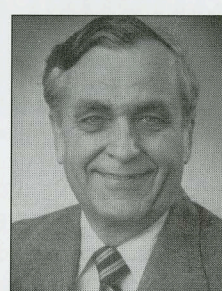
Sidney R. Parker
1980-1981



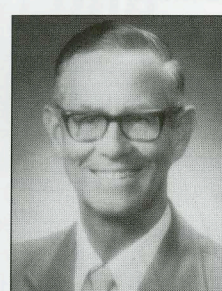
Russell E. Lueg
1981-1982



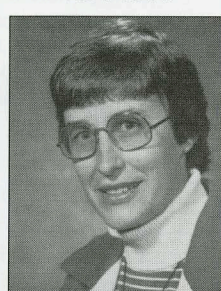
J. Robert Betten
1982-1983



Paul B. Jacob, Jr.
1983-1984



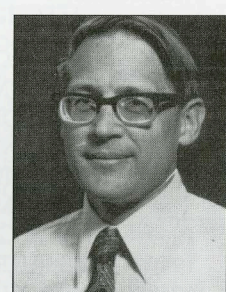
Earl L. Steele
1984-1985



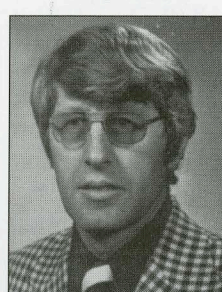
Joanne L. Waite
1985-1986



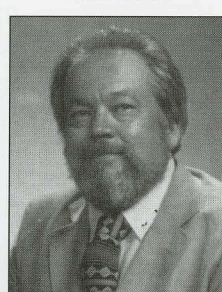
Alan Lefkow
1986-1987



Harold K. Knudsen
1987-1988



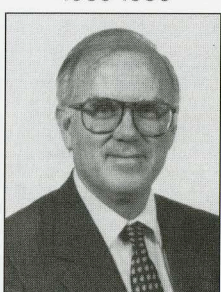
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1988-1989



Robert Kennerknecht
1989-1990



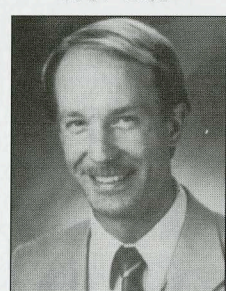
Robert F. Arehart
1990-1991



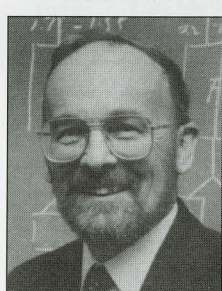
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1991-1992



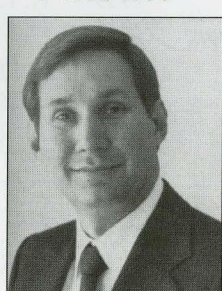
Laureen H. Parker
1992-1993



David G. Meyer
1993-1994



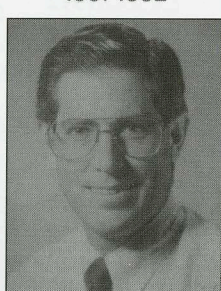
Bruce P. Johnson
1994-1995



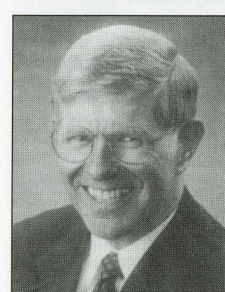
Michael R. Hajny
1995-1996



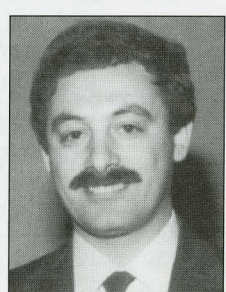
Robert I. Egbert
1996-1997



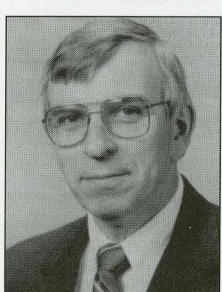
John D. Wolf
1997-1998



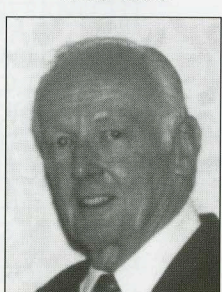
Richard J. Gowen
1998-99, 99-2000



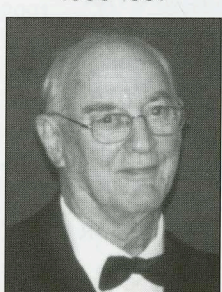
Mohammad Shahidehpour
2000-2001



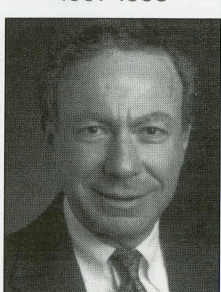
James L. Melsa
2001-2002



Thomas L. Rothwell
2002-2003



Eric Herz
2003-2004



Karl E. Martersteck
2004-2005

Centennial TRIBUTE

to Past Officers, Directors and National Advisory Board

From 1905 when the first national office was established until 1928, the national officers consisted of a President, Vice-President, and Secretary, and occasionally a Treasurer, Bridge Editor, or other officer. From 1928 until 1957, the national office consisted of a President, Vice President, and Executive Secretary and a National Advisory Board of 3 to 5 members. From 1958 until the present, a national Board of Directors has been used that consists of the President, Vice President, Executive Secretary and four to six elected directors. Each individual who has served as a national officer, National Advisory Board member, or national director has contributed years of service to HKN. Many have held numerous positions and have remained active for decades. These individuals are listed below, next to the date of their first election to a national office.

| | | | | | |
|------|-----------------|------|-----------------|------|-------------------|
| 1905 | M. L. CARR | 1931 | C. S. GEORGE | 1946 | P. C. CROMWELL |
| 1905 | E. B. WHEELER | 1931 | M. S. MASON | 1946 | P. H. PUMPHREY |
| 1905 | C. E. ARMSTRONG | 1932 | G. H. KELLEY | 1947 | R. W. FOUSE |
| 1906 | A. F. MCKEE | 1933 | J. M. NEWMAN | 1947 | F. E. SANFORD |
| 1907 | C. C. CARR | 1933 | E. F. WATSON | 1948 | J. E. HOBSON |
| 1908 | C. T. EVANS | 1933 | A. F. WEBER | 1948 | W. J. LYMAN |
| 1909 | B. T. ANDERSON | 1934 | E. P. CARPENTER | 1949 | E. T. B. GROSS |
| 1909 | L. H. HARRIS | 1934 | C. H. MACDONALD | 1949 | E. B. KURTZ |
| 1909 | A. R. KNIGHT | 1934 | L. A. SPANGLER | 1949 | T. W. WILLIAMS |
| 1911 | A. H. HEITMAN | 1934 | R. I. WILKINSON | 1951 | F. J. HALLENBECK |
| 1912 | A. B. ZERBY | 1935 | N. L. BEST | 1951 | C. B. HOLT |
| 1913 | R. H. WEBB | 1935 | H. J. SUMMERS | 1951 | J. M. MONSTREAM |
| 1914 | B. F. MILLER | 1937 | C. A. FAUST | 1951 | A. NAETER |
| 1915 | H. S. COCKLIN | 1937 | W. J. HERRMAAN | 1951 | S. R. WARREN |
| 1916 | F. A. COFFIN | 1937 | A. T. JOHNSTON | 1952 | C. R. AMMERMAN |
| 1917 | J. M. STRAIT | 1938 | M. BUCK | 1952 | O. W. ESCHBACH |
| 1918 | F. T. BANGS | 1938 | L. A. DOGGETT | 1952 | G. W. SWENSON |
| 1918 | D. G. EVANS | 1938 | C. B. HOFFMAN | 1953 | C. T. KOERNER |
| 1918 | A. C. GRAYSON | 1939 | V. E. LOWDEN | 1954 | E. E. GRAZDA |
| 1918 | P. MACGILVARY | 1939 | H. R. REED | 1954 | J. G. TARBOUX |
| 1919 | J. B. KELLY | 1940 | B. F. LEWIS | 1955 | L. DWON |
| 1920 | J. M. SPANGLER | 1940 | M. S. MCILROY | 1955 | J. W. RITTENHOUSE |
| 1922 | G. P. SAWYER | 1940 | H. N. WALKER | 1955 | L. W. ROBERTSON |
| 1922 | L. F. SEYBOLD | 1941 | J. J. CASSIDY | 1956 | C. F. HILL |
| 1922 | J. E. ZOLLINGER | 1941 | H. A. DAUBLY | 1957 | C. M. HYDE |
| 1923 | A. A. HOFGREN | 1942 | C. C. DASH | 1957 | R. E. NOLTE |
| 1923 | J. W. WEIGT | 1942 | L. F. HUNT | 1957 | M. B. REED |
| 1924 | F. E. BROOKS | 1942 | F. M. STARR | 1957 | J. D. RYDER |
| 1926 | M. C. HALE | 1943 | R. BEACH | 1958 | J. H. CRAIG |
| 1926 | E. S. LEE | 1943 | F. E. HARRELL | 1959 | G. T. HARNESS |
| 1928 | C. H. REEDER | 1944 | N. S. HIBSHMAN | 1959 | J. A. M. LYON |
| 1930 | J. S. BELTZ | 1945 | W. E. KOCK | 1959 | F. W. NORRIS |



Past board directors of Eta Kappa Nu attending the HKN Centennial Banquet in 2004 were recognized for their Contributions.

L to R: Jim D'Arcy, Karl Martersteck, Richard Gowen, Eric Herz, Jim Melsa, Jo Waite, Alan Lefkow, Frank Weimer, Jack Farley, Tom Rothwell, Paul Smith, Don Christiansen, Ron Spanke, Eugene Mleczo, Dave Irwin, Lyle Feisel, Tim Trick, Steven Goodnick, Cecelia Jankowski, and Steve Watkins.

| | | | | | |
|------|------------------|------|--------------------|------|-------------------|
| 1959 | F. TATUM | 1972 | B. SHEFFIELD | 1986 | L. H. PARKER |
| 1959 | J. D. TILLMAN | 1972 | D. E. TODD | 1987 | S. MCCULLOUGH |
| 1959 | J. A. TUCKER | 1973 | E. D. EYMAN | 1987 | J. MITCHELL |
| 1960 | R. C. GORHAM | 1973 | W. A. KLOS | 1988 | I. ENGLESON |
| 1960 | P. B. JACOB | 1973 | W. H. PICKERING | 1988 | D. S. STOICA |
| 1960 | J. E. LAGERSTROM | 1974 | M. D. DODSON | 1989 | D. G. MEYER |
| 1961 | W. B. GROTH | 1974 | G. R. KANE | 1989 | J. R. ROWLAND |
| 1961 | R. J. KOOPMAN | 1974 | R. W. LUCKY | 1990 | B. P. JOHNSON |
| 1961 | R. W. SCHLINDER | 1974 | E. L. STELLE | 1990 | J. H. SPARE |
| 1962 | A. K. HAWKES | 1975 | C. H. DUNN | 1991 | B. J. BALL |
| 1962 | E. C. LOWENBERG | 1975 | Q. G. GENNARO | 1991 | D. T. STEPHENSON |
| 1962 | H. H. SHEPPARD | 1976 | W. J. JOHNSON | 1992 | R. A. BARTOLINI |
| 1963 | G. B. HOADLEY | 1976 | W. V. T. RUSCH | 1992 | D. W. LEITTERMAN |
| 1963 | E. NOGES | 1976 | A. R. STOUDINGER | 1993 | R. I. EGBERT |
| 1963 | T. L. ROTHWELL | 1977 | J. R. BETTEN | 1993 | R. J. NIEDERJOHN |
| 1964 | O. M. SALATI | 1977 | A. HAUSER | 1994 | K. E. MARTERSTECK |
| 1964 | W. P. SMITH | 1977 | S. R. PARKER | 1994 | J. D. WOLF |
| 1964 | L. STAUDER | 1977 | R. L. PHILLIPS | 1995 | M. SHAHIDEHPOUR |
| 1965 | J. E. FARLEY | 1978 | J. O. KOPPLIN | 1995 | R. J. GOWEN |
| 1965 | A. F. GABRIELLE | 1978 | R. LUEG | 1996 | B. R. DEMAAYER |
| 1966 | H. L. ABLEN | 1978 | J. H. MULLIGAN | 1996 | R. HOELZEMAN |
| 1966 | W. D. BONSER | 1979 | R. G. BENNETTS | 1997 | J. L. MELSA |
| 1966 | J. C. HANCOCK | 1979 | A. LEFKOW | 1997 | R. A. SPANKE |
| 1967 | G. E. DREIFKE | 1979 | J. L. WAITE | 1998 | W. E. HORD |
| 1967 | R. A. ERDEY | 1980 | V. ELERBRUCH | 1998 | C. R. POLLACK |
| 1967 | C. E. HUTCHINSON | 1980 | H. K. KNUDSEN | 2000 | C. D. COTTON |
| 1968 | L. B. CHERRY | 1981 | G. BALDERSON | 2000 | C. A. GROSS |
| 1968 | W. K. MACADAM | 1981 | S. A. WHITE | 2000 | E. HERZ |
| 1968 | C. C. ROGERS | 1982 | D. CHRISTIANSEN | 2000 | H. H. KUEHL |
| 1969 | E. C. GLOVER | 1982 | P. HAGOUEL | 2001 | J. D. IRWIN |
| 1969 | M. S. SHEPPERD | 1982 | R. J. KENNERKNECHT | 2001 | D. P. SMITH |
| 1970 | W. E. MURRAY | 1983 | N. R. CARSON | 2002 | B. E. EISENSTEIN |
| 1970 | H. C. SLOCUM | 1983 | J. D'ARCY | 2002 | A. S. BROWN |
| 1970 | M. VANVALKENBURG | 1984 | R. COCKRUM | 2002 | J. CHOMA |
| 1970 | L. W. ZELBY | 1984 | A. J. ELISSON | 2002 | T. TRICK |
| 1971 | N. H. FARHAT | 1984 | M. R. HAJNY | 2003 | D. E. BORTH |
| 1971 | O. W. MUCHENHIRN | 1985 | A. L. ARNOLD | 2003 | L. D. FEISEL |
| 1971 | F. C. WEIMER | 1985 | E. L. MLECZKO | 2004 | S. M. GOODNICK |
| 1972 | C. M. BUTLER | 1986 | R. F. AREHART | 2004 | C. JANKOWSKI |
| 1972 | R. S. MACMILLEN | 1986 | J. L. DELCROIX | 2004 | S. E. WATKINS |

Executive Secretaries of HKN

In the early days of the association there was no central operating office. Each officer did his part from his home or place of business. When the official position of Executive Secretary was established in 1928, a more permanent location began to take hold. Later L. A. Spangler set up a temporary office in Chicago, Illinois, so the records were shipped to that location. Subsequently, A. B. Zerby established the first permanent headquarters in Winkinsburg PA, and later in Dillsburg, PA.

The responsibilities of the executive secretary are many and broad in scope. The executive secretary is in charge of all corporate matters and filings, all financial aspects including deposits of membership dues and payment of all expenses, all taxes and IRS reports, recording all membership data and issuing certificates, editing and publishing the Bridge Magazine, communication with all members, chapters and faculty advisors, and preparing for and facilitating national board meetings to name a few. They are the Chief Operating Officer for the organization. Carrying out these duties in the manner required for the good of the Association necessitates special skills and dedication of the kind A. B. Zerby and others gave mostly voluntarily to Eta Kappa Nu. The finances of the organization have only allowed a part-time compensation for their duties, with many additional hours being put in on a volunteer basis. With the new constitution in 2002, the Executive Secretary position was eliminated from the Board, and replaced with an Executive Director as an employee reporting to the Board of Directors.

1928-31 J. A. Umhoefer

1931-34 Leyland A. Spangler

1934-58 Alton B. Zerby, Epsilon '10 After graduation, A.B. joined the Pennsylvania alumni chapter and immediately began working on national affairs. He was elected national treasurer in 1912, national VP and Bridge editor in 1913-14, and national president in 1914-15. In 1918, when Leslie Harris was called to active duty, A.B. took over as national secretary and held that position until 1928. He served six years on the NAB and was then elected Executive Secretary in 1934. As

Executive Secretary, he expanded the organization from 11 to 66 chapters, and conducted personal visits to all chapters. He became known nationally as "Mr. Eta Kappa Nu" and was the first recipient of the Distinguished Service Award in 1971.

1958-88 Paul Hudson Alpha '50

Paul was appointed faculty advisor to Alpha Chapter in 1952, a position he held until he was elected as national executive secretary in 1958. He served as Executive Secretary from 1958-1988 and as editor of *The Bridge* from 1963-1988. As executive secretary he expanded the organization to 180 chapters and implemented a regional visitation program and several award programs including the outstanding EE student, outstanding teacher award and Distinguished

Service Award. He started the concept of the endowment funds which grew from zero to over \$200,000. Paul is remembered by many for his prolific writing and creative covers for *The Bridge*.

1988-99 J. Robert Betten, Nu '55

After completing his term as HKN president, Betten stepped in to take over the HKN executive secretary position after the death of Paul Hudson in 1988. Under Betten the HKN national office relocated from the University of Illinois to the University of Missouri-Rolla where Betten was an EE Professor. The number of total chapters expanded under Betten from 180 to 206, however, many other existing chapters became inactive and ceased to induct new members during this period, leaving only about 140 active chapters. Betten led HKN through increasingly difficult financial times during the 1990s due to decreasing numbers of student members until he was asked to resign in 1999.

2000-05 Ron A. Spanke, Omega '82

Ron's involvement with national HKN began when he was named the Outstanding Young EE for 1988. Ron was elected as a national director from 1996-1999. Spanke worked to enable new sources of funding from contributions and Bridge advertising. Under Spanke, major efforts were undertaken to amend our incorporation papers and ratify a new constitution to enable HKN to file for 501(c)3 tax status with the IRS allowing the organization to receive tax deductible contributions. The Bridge Magazine has a new look and feel and color cover. Spanke led efforts to computerize the HKN membership data and Bridge subscriber data that was previously available only on paper forms in the HQ office. Five new chapters have been installed and over 30 inactive chapters have been revived.

DSA DISTINGUISHED SERVICE AWARD

In recognition of dedicated service and long-term contributions to Eta Kappa Nu that have resulted in significant benefits for all members

Distinguished Service Award Recipients

| | Year Received | Years of Service |
|---------------------|---------------|------------------|
| Alton B. Zerby | 1971 | 47 |
| Roger I. Wilkinson | 1972 | 61 |
| Clifford A. Faust | 1973 | 10 |
| C. Holmes MacDonald | 1974 | 41 |
| Carl T. Koerner | 1975 | 44 |
| Larry Dwon | 1976 | 70 |
| Edwin B. Kurtz | 1977 | 44 |
| Everitt S. Lee | 1978 | 43 |
| Leyland A. Spangler | 1978 | 40 |
| John E. Farley | 1979 | 56 |
| Paul K. Hudson | 1979 | 38 |
| Berthold Sheffield | 1981 | 41 |
| Marcus Dodson | 1983 | 55 |
| Tony Gabrielle | 1985 | 54 |
| Thomas L. Rothwell | 1999 | 51 |
| John A. Tucker | 2000 | 51 |
| Donald Christiansen | 2001 | 31 |
| Alan Lefkow | 2002 | 39 |
| Robert F. Arehart | 2003 | 53 |
| James A. D'Arcy | 2004 | 32 |

Distinct Bridge-shaped DSA frame and citation presented to DSA recipients

The Eta Kappa Nu Distinguished Service Award

Eta Kappa Nu created the Distinguished Service Award (DSA) in 1971 to recognize those individuals who have made significant contributions to the society throughout their life. The background for this important activity began in 1939 when founder Maurice L. Carr wrote "Eta Kappa Nu grew because there have always been many members who were willing and eager to serve it loyally and unselfishly. I would like to see some form of recognition conferred upon members who have rendered such service to HKN." The board of directors approved the DSA recognition in 1971.

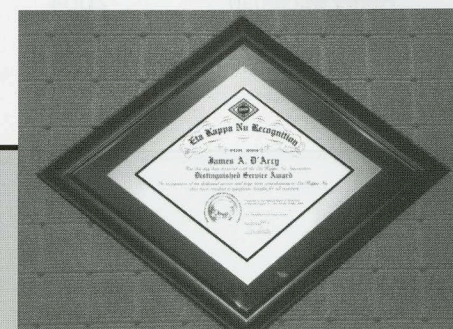
The DSA charter now limits this award to at most one individual per year. The DSA award committee is comprised of all living past recipients of the DSA award plus the current HKN national president.

Reflections from the DSA Committee Chair:

It is fitting to reflect on the effort that contributed to HKN's success during its first one hundred years of life. Members who have been willing and eager to serve it loyally and unselfishly in an extra-ordinary way have been honored with the Distinguished Service Award, DSA. Their names are listed here along with the year in which they received the award and their years of continuous service to HKN. It is observed that this small group of 20 members contributed over 900 years of distinguished service or an average of 45 years each.

It is my fervent hope that HKN is similarly or even better blessed with loyal and unselfish volunteers in the next 100 years. It will largely depend on high quality selection of new members, motivation by faculty advisors and an environment on campus that encourages voluntary service as part of the education received by young Eta Kappa Nu members. The career success obtained by members listed here attest to the value of voluntary effort.

-Larry Dwon



Centennial TRIBUTE

to Eminent Members of HKN

Eta Kappa Nu established the rank of Eminent Member in 1950 as the society's highest membership classification, to be conferred upon those select few whose technical attainments and contributions to society through leadership in the field of electrical and computer engineering have resulted in significant benefits to all. These individuals display distinguished and inspirational profiles in engineering leadership.

| | | | | | |
|--------------------------|------|----------------------|------|-------------------------|------|
| Vannevar Bush | 1950 | Chauncey Starr | 1960 | Nick Holonyak, Jr. | 1998 |
| Royal W. Sorensen | 1950 | Arthur D. Moore | 1961 | Gene Amdahl | 1999 |
| Vladimir K. Zworykin | 1950 | John L. Burns | 1961 | William Hewlett | 1999 |
| Frederick E. Terman | 1951 | James Hillier | 1961 | C. Lester Hogan | 1999 |
| Joseph Slepian | 1951 | Charles F. Wagner | 1961 | Jacob Rabinow | 1999 |
| Karl B. McEachron | 1951 | John Bardeen | 1962 | Robert A. Frosch | 2000 |
| Soren H. Mortenson | 1951 | Lloyd V. Berkner | 1962 | Wilson Greatbatch | 2000 |
| William H. Timbie | 1951 | Edward M. Purcell | 1962 | Leo L. Beranek | 2000 |
| Lee DeForest | 1952 | Jerome B. Wiesner | 1962 | George H. Heilmeier | 2000 |
| Edward C. Molina | 1953 | Ernst Weber | 1962 | John R. Whinnery | 2000 |
| Harold Pender | 1953 | Gordon S. Brown | 1963 | Thelma Estrin | 2000 |
| Charles A. Powell | 1953 | William L. Everitt | 1963 | Ivan A. Getting | 2000 |
| Philip Sporn | 1953 | Lee A. Dubridge | 1964 | Charles H. Townes | 2000 |
| Walter R.G. Baker | 1954 | Julius A. Stratton | 1964 | Norman R. Augustine | 2001 |
| Mervin J. Kelly | 1954 | Donald G. Fink | 1965 | Charles Concordia | 2001 |
| Reinhold Rudenberg | 1954 | Simon Ramo | 1966 | Edward E. David, Jr. | 2001 |
| James B. Black | 1954 | Winston E. Kock | 1966 | Roland W. Schmitt | 2001 |
| Andrew A. Potter | 1954 | George H. Brown | 1967 | Mischa Schwartz | 2001 |
| Ellery B. Paine | 1954 | William H. Pickering | 1968 | John Brooks Slaughter | 2001 |
| Everett S. Lee | 1954 | Harold E. Edgerton | 1968 | James L. Flanagan | 2001 |
| Ernst F. W. Alexanderson | 1955 | Emanuel R. Piore | 1969 | Malcolm R. Currie | 2001 |
| Alfred N. Goldsmith | 1955 | Patrick E. Haggerty | 1969 | Donald O. Pederson | 2001 |
| Harold S. Osborne | 1955 | Walker Lee Cisler | 1969 | John R. Pierce | 2001 |
| Harry A. Winne | 1955 | Edgar L. Kanouse | 1970 | Amar G. Bose | 2002 |
| John B. Whitehead | 1955 | Edward C. Jordan | 1974 | J. Fred Bucy | 2002 |
| Harold H. Beverage | 1955 | Eric T. B. Gross | 1976 | Andrew Sage | 2002 |
| Leslie Newman McClellan | 1955 | Edward A. Erdelyi | 1978 | Richard J. Gowen | 2002 |
| William D. Coolidge | 1956 | Larry Dwon | 1984 | Eberhardt Rechtin | 2002 |
| Harry Nyquist | 1956 | Howard Sheppard | 1984 | Donald R. Scifres | 2003 |
| Leon N. Brillouin | 1956 | Samuel Reid Warren | 1984 | Jerome J. Suran | 2003 |
| John Howard Dellinger | 1956 | Donald Christiansen | 1985 | Irwin M. Jacobs | 2003 |
| William B. Kouwenhoven | 1956 | Marcus Dodson | 1986 | Henry Bachman | 2004 |
| Donald A. Quarles | 1958 | William E. Murray | 1987 | Arthur Stern | 2004 |
| Clifford F. Hood | 1958 | Berthold Sheffield | 1993 | Walter Jeremiah Sanders | 2004 |
| Philip L. Alger | 1960 | Robert W. Lucky | 1993 | | |

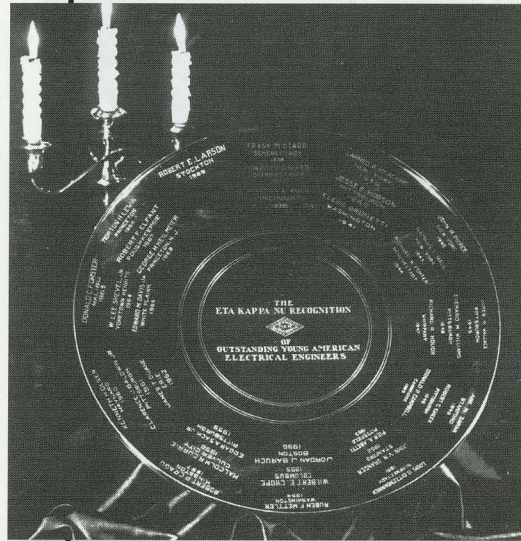
THE VLADIMIR KARAPETOFF OUTSTANDING TECHNICAL ACHIEVEMENT AWARD



This major Eta Kappa Nu award for career technical achievement is made annually to an electrical engineering practitioner who has distinguished him/herself through an invention, a development, or a discovery in the field of electrotechnology which resulted in significant benefits to humankind. The award is named for the late Vladimir Karapetoff, a distinguished scientist, electrical engineer, musician, and prominent member of Eta Kappa Nu. Dr. Karapetoff was born in St. Petersburg, Russia, in 1876 and emigrated to the U. S. in 1902, becoming a naturalized citizen in 1909. He joined the engineering faculty of Cornell University in 1904, and remained there until retirement in 1939. In addition to his engineering and teaching accomplishments, Dr. Karapetoff was a musician and musical inventor, and received an honorary Doctor of Music degree from the New York College of Music. The award was established by the HKN Board of Directors in 1992. The fund to support the award was initiated through a bequest from Dr. Karapetoff's widow, Rosalie M. (Cobb) Karapetoff, herself a distinguished chemical engineer.

- 1992 **Wilson Greatbatch**, for the implantable pacemaker
- 1993 **George H. Heilmeier**, for liquid crystal displays
- 1994 **Nick Holonyak, Jr.** for solid state lasers and light emitters
- 1995 **John Moll**, for his work in solid state physics and his mathematical analysis of transistor amplification
- 1996 **Harold A. Heeler**, for the automatic volume control circuit and his pioneering work in radio and television
- 1997 **Jerry M. Woodall**, for GaAs inventions and developments
- 1998 **Al Gross**, for pioneering contributions to the engineering of personal wireless communications
- 1999 **Jack St. Clair Kilby**, for development of the integrated circuit
- 2000 **Amos E. Joel, Jr.** for pioneering developments and teaching in the field of telephone switching and electronic switching systems
- 2001 **C. Gordon Bell**, for developments in computer architecture
- 2002 **Robert H. Dennard**, for his invention of the one transistor DRAM memory cell
- 2003 **Bernard C. DeLoach**, for technical contributions to the fields of microwaves and optics
- 2004 **Yau Chau Ching**, for development of the Synchronous Optical Network (SONET)

OUTSTANDING Young Electrical Engineer AWARDS



Engraved OYEE bowl, started in 1936 which is engraved annually with the name of each OYEE winner.

As evidenced by their past records and future promise, the OYEE recognition shall be given annually to young electrical and computer engineering graduates for meritorious service in the interest of their fellow men. Started in 1936, the Eta Kappa Nu OYEE recognition was created to "emphasize among electrical engineers 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 the logical methods of thinking should fit the engineer to achieve substantial success in many lines of endeavor." Candidates must not be more than 36 years old at the time of the award. Beginning with the centennial year, the name of the award is changing to the Outstanding Young Electrical and Computer Engineer recognition.

Since 1936, 68 young engineers have received the award and 143 engineers have received honorable mentions. The award is given on the basis not only of what success the young electrical engineers have had in their vocation, but also what they did to broaden themselves culturally and what they have done for others. Many past recipients have gone on to make profound impacts on our society and many are some of America's leading electrical engineering teachers and administrators. A review of what these engineers have accomplished since graduation is astounding.

| | | | | | | | |
|------|--------------------|------|-------------------|------|--------------------|------|---------------------|
| 1936 | F. M. Starr | 1953 | P. A. Abetti | 1970 | J. B. Farison | 1987 | J. G. Frohlich |
| 1937 | C. G. Suits | 1954 | R. F. Mettler | 1971 | E. R. Berlekamp | 1988 | R. A. Spanke |
| 1938 | W. E. Kock | 1955 | W. E. Chope | 1972 | G. P. Shuraym | 1989 | S. M. Yuen |
| 1939 | L. A. Meacham | 1956 | J. J. Baruch | 1973 | J. T. La Macchia | 1990 | C. Jankowski |
| 1940 | J. R. Hobson | 1957 | R. P. Crago | 1974 | H. J. Hovel | 1991 | C. J. Chang-Hasnain |
| 1941 | C. Brunetti | 1958 | M. R. Currie | 1975 | D. J. Melvold | 1992 | P. O. Nunally |
| 1942 | J. R. Pierce | 1959 | E. A. Sack, Jr. | 1976 | C. S. Hartmann | 1993 | W. W. Hwu |
| 1943 | N. I. Hall | 1960 | K. H. Olsen | 1977 | J. G. N. Henderson | 1994 | K. E. Ismail |
| 1944 | R. W. Porter | 1961 | C. J. Baldwin, Jr | 1978 | R. E. Birney | 1995 | P. Cosentino |
| 1945 | J. M. Wallace | 1962 | J. T. Duane | 1979 | R. G. Cornell | 1996 | S. T. Acton |
| 1946 | E. M. Williams | 1963 | D. C. Forster | 1980 | J. E. Russell, Sr. | 1997 | F. M. Chiussi |
| 1947 | R. R. Hough | 1964 | W. L. Shevel, Jr | 1981 | T. R. Gheewala | 1998 | Y-Q Zhang |
| 1948 | A. R. Zarem | 1965 | E. M. Davis, Jr. | 1982 | C. R. Johnson, Jr. | 1999 | C. M. DeCusatis |
| 1949 | R. C. Cheek | 1966 | M. H. Lewin | 1983 | B. F. Fitzgerald | 2000 | K. Ramaswamy |
| 1950 | D. P. Campbell | 1967 | R. R. Elfant | 1984 | W. E. Moerner | 2001 | T. L. Olsen |
| 1951 | L. G. Gitzendanner | 1968 | G. H. Heilmeier | 1985 | M. G. Adamiak | 2002 | M. H. Lipasti |
| 1952 | J. B. N. Granger | 1969 | R. E. Larson | 1986 | M. Keith | 2003 | A. Emadi |

The C. Holmes MacDonald

OUTSTANDING TEACHER AWARD

The Outstanding Teacher Award was established to recognize excellence in teaching of Electrical and Computer Engineering Students and to improve Faculty-Student-Alumni relations. The award was conceived by the Philadelphia Alumni Chapter and was first presented for the 1972 academic year.

Originally titled the Distinguished Young E.E. Teacher Award, the name of the award was later changed to recognize Dr. C. Holmes MacDonald after his death in 1975, whose many contributions to Eta Kappa Nu included serving as Chair of the National Activities Board, as National Director, finance committee and financial counselor, HKN representative to the Association of College Honor Societies, and his instrumental work in helping to establish the HKN Outstanding Teacher Award program.

The award recognizes the central and crucial role of college professors in educating and motivating future engineers and is presented annually to outstanding young Electrical or Computer Engineering teachers under age 35 who have demonstrated, early in their careers, special dedication and creativity in their teaching responsibilities, in addition to professional activities, service to the community, and cultural development. Letters of recommendation are required from at least one student and two professional associates.

There have been 28 winners and 38 honorable mentions named throughout the history of the award. The recipient is honored with a certificate and a plaque from the National Board of Directors. Nomination forms are mailed to all chapters annually, and can also be obtained from HKN headquarters.

| | |
|------|---------------------------|
| 1972 | Dr. Charles Vincent Smith |
| 1973 | Dr. James Heinin |
| 1974 | Dr. Lloyd J. Griffiths |
| 1975 | Dr. Bruce A. Eisenstein |
| 1976 | Dr. Stanley R. Liberty |
| 1977 | Dr. John E. Fagan |
| 1978 | Dr. Russell J. Niederjohn |
| 1979 | Dr. Peter S. Maybeck |
| 1980 | NO AWARD GIVEN |
| 1981 | Dr. Richard O. Claus |
| 1982 | Dr. C. Richard Johnson |
| 1983 | NO AWARD GIVEN |
| 1984 | Dr. Andrew J. Blanchard |
| 1985 | NO AWARD GIVEN |
| 1986 | Dr. A. Richard Newton |
| 1987 | Dr. David G. Meyer |
| 1988 | Dr. Clifford R. Pollock |
| 1989 | NO AWARD GIVEN |
| 1990 | Dr. Mohammad Shahidehpour |
| 1991 | Dr. Moshe Kam |
| 1992 | Dr. Barry W. Johnson |
| 1993 | Dr. Denise Dee Denton |
| 1994 | Dr. Bruce L. Walcott |
| 1995 | Dr. Jo Dale Carothers |
| 1996 | Dr. John D. Cressler |
| 1997 | Dr. Wen-Mei Hwu |
| 1998 | Dr. Aleta M. Ricciardi |
| 1999 | Dr. Richard G. Baraniuk |
| 2000 | Dr. Sheila S. Hemami |
| 2001 | Dr. Richard R. Shultz |
| 2002 | Dr. Noel N. Schulz |
| 2003 | Dr. Daryl G. Beetner |

University of Texas at Arlington
Marquette University
University of Colorado
Drexel University
Texas Tech University
University of Oklahoma
Marquette University
Air Force Institute of Technology

Virginia Poly. Institute
Cornell University

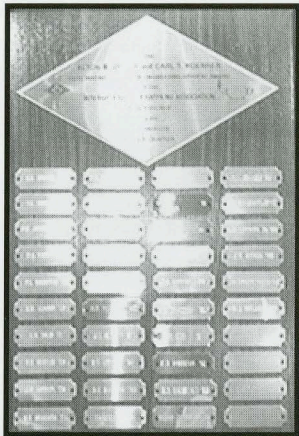
University of Texas at Arlington

Univ. of California at Berkeley
Purdue University
Cornell University

Illinois Institute of Technology
Drexel University
University of Virginia
Univ. of Wisconsin at Madison
University of Kentucky
University of Arizona
Auburn University
University of Illinois-Urbana
University of Texas at Austin
Rice University
Cornell University
University of North Dakota
Mississippi State University
University of Missouri-Rolla

THE ALTON B. ZERBY AND CARL T. KOERNER

OUTSTANDING Electrical Engineering Student AWARDS



The OECES award program recognizes selected students each year who typify the best balance of scholarship, service activity, leadership, and character. Inaugurated in 1965 as the Outstanding EE Student Award Program of HKN, its name was changed in 1975 to “The Alton B. Zerby Outstanding EE Student Award” to honor and perpetuate the memory of Mr. Zerby, a long-time leader and Executive Secretary of HKN. In 1993, the name was further changed to include Carl T. Koerner, to honor and perpetuate the memory of Mr. Koerner, who had a lifelong dedication to HKN, including serving as President and recipient of the HKN Distinguished Service Award. In 2003 the name of the award was expanded to include electrical and computer engineering.

The OECES award is administered by the Los Angeles Area HKN Alumni chapter. The award winner’s travel and expenses are covered by financial support from the Alton B. Zerby Memorial Fund. An honorarium for the winner is made possible by the Carl T. Koerner Memorial Fund, established in 1978 by his widow Edie Koerner and friends.

| | | | | | |
|------|-----------------------|---------------------------|------|------------------------|----------------------------|
| 1965 | Carl Anthony Cooper | Univ of S. California | 1987 | Lonnie D. Chrisman | Univ of CA - Berkeley |
| 1966 | Thomas L. Thomas | Ohio State Univ | | & Penny M. Gilbertson | Montana State Univ |
| 1967 | Douglas F. Johnstone | Purdue Univ | 1988 | Emy Tan | Univ of Illinois-Urbana |
| 1968 | Donald Alan Hanson | Univ of Illinois-Urbana | 1989 | Patrick S. Kennedy | Milwaukee School of Engr |
| 1969 | Thomas L. Niemeyer | Ohio State Univ | 1990 | Ashok Kumar | Univ of Washington |
| 1970 | Robert W. Alford | Univ of TX - Arlington | 1991 | Geoffrey W. Burr | State Univ of NY - Buffalo |
| 1971 | Alan M. Usas | Princeton Univ | 1992 | Paul D. Anderson | Tennessee Tech Univ |
| 1972 | Noel H. Runyan | Univ of New Mexico | 1993 | Brad D. Marshall | Kansas State Univ |
| 1973 | John B. Gordon | Univ of TX - Austin | 1994 | Lillian Chiamin Ho | Univ of Texas - Austin |
| 1974 | Steven R. Brammer | Univ of TX - Arlington | 1995 | Andrew L. Sears | Univ of Missouri - Rolla |
| 1975 | William Mumford, III | Oregon State Univ | 1996 | Jovan D. Milosavljevic | Univ of NY - Stony Brook |
| 1976 | Allen D. Elster | Vanderbilt Univ | 1997 | Louis R. Litwin, Jr. | Drexel Univ |
| 1977 | David D. Welter | Univ of New Mexico | 1998 | Jeffry T. Ross | Northeastern Univ |
| 1978 | Douglas R. Kraul | Georgia Inst of Tech | 1999 | Raymond Wang | Univ of CA - Berkeley |
| 1979 | Max W. Hauser | Univ of CA -Berkeley | 2000 | Wesley J. Bolsen | Rose-Hulman Inst of Tech |
| | & Louise A. Veilleaux | Univ of Maine | 2001 | Kendall S. Ching | Univ of Hawaii-Manoa |
| 1980 | Mark David Vanstrum | Auburn Univ | | & William F. Thies | MIT |
| 1981 | Gary L. Sonnier | Univ of SW Louisiana | 2002 | Shadab N. Mozaffar | Univ of Kansas |
| 1982 | Richard L. Goodson | Univ of Alabama | 2003 | Aaron T. Ohta | Univ of Hawaii - Manoa |
| 1983 | Steve E. Watkins | Univ of Missouri-Rolla | 2004 | Matthew C. Rodrigue | Univ of Maine |
| 1984 | Michael J. Hargraves | Ohio Univ | | & Matthew R. Behrend | Univ of S. California |
| 1985 | Yvonne M. Utzig | CA State Poly-Pomona | | | |
| 1986 | Charles A. Bier | Rice Univ | | | |
| | & Dick P. Welch | Univ of Illinois - Urbana | | | |

THE NORMAN R. CARSON

OUTSTANDING Electrical Engineering Junior

The Outstanding Electrical Engineering Junior Award was established by Eta Kappa Nu in 1984 in order to recognize student leadership in addition to academic and technical excellence. The goal is to encourage students to develop leadership skills before they enter the job market. Thus, this award strives to acknowledge those students who have demonstrated their ability to lead, persuade, and influence the actions of others in addition to their diligence, intelligence and technical competence. Other considerations are community service and well-roundedness. The award covers activities up to and including the nominee’s Junior year and applications are submitted during the Spring Semester of each year.

The Outstanding Junior EE award is presented annually and is administered by the Lone Star Alumni Chapter of Austin, Texas. Since its inception, 17 students have received this award. Over 30 students were honored as runners-up and over 60 students received honorable mention. The award is named for Norman R. Carson, who served on the HKN National Board of Directors from 1983 to 1985 and worked to define and implement the award program. The Outstanding Junior award consists of \$500 and a certificate. The fund to support the award was a gift from Mr. and Mrs. Norman R. Carson.

| YEAR | NATIONAL WINNER | CHAPTER | UNIVERSITY |
|------|------------------------|-------------|--|
| 1985 | Roger A. Davidson | Epsilon Eta | Rose-Hulman Institute of Technology |
| 1986 | John M. Steinke | Theta Rho | Rice University |
| 1987 | Spencer Green | Theta Rho | Rice University |
| 1988 | Mark Harold Somerville | Psi | University of Texas - Austin |
| 1989 | Stephen A. Boppart | Alpha | University of Illinois |
| 1990 | Geoffry W. Burr | Zeta Pi | State University of New York - Buffalo |
| 1991 | Tracey Lynn Wallen | Delta Pi | Colorado State University |
| 1992 | Susan Carol Gagness | Beta Tau | Northwestern University |
| 1993 | Kenton L. Epard | Beta Kappa | Kansas State University |
| 1994 | Andrew L. Sears | Gamma Theta | University of Missouri-Rolla |
| 1995 | Michelle C. Munson | Beta Kappa | Kansas State University |
| 1996 | Ryan James Mattison | Nu | Iowa State University |
| 1997 | Ashwin Viswanathan | Beta Theta | Massachusetts Institute of Technology |
| 1998 | Jaime Ann Melanson | Beta Xi | University of Oklahoma |
| 1999 | Wesley J. Bolsen | Epsilon Eta | Rose-Hulman Institute of Technology |
| 2000 | Kevin Frederick | Sigma | Carnegie Mellon University |
| 2002 | Joseph Tobias Case | Gamma Theta | University of Missouri - Rolla |

OUTSTANDING Chapter Activities Award

The Outstanding Chapter Activities Award is presented annually to the chapter having the best overall programming and activities. Most active chapters serve their fellow students, department, school, and community in many ways. For some chapters, their level of service to others is very significant.

| | | | | | |
|---------|--------------------|----------------------------------|---------|-------------|-------------------------------|
| 1932-33 | Gamma | Ohio State University | 1970-71 | Gamma Xi | University of Maryland |
| 1933-34 | Beta | Purdue University | 1971-72 | Gamma Xi | University of Maryland |
| 1934-35 | Pi | Oregon State University | 1972-73 | Omega | Oklahoma State University |
| 1935-36 | Kappa | Cornell University | 1973-74 | Gamma Chi | New Mexico State University |
| 1936-37 | Omega | Oklahoma State University | 1974-75 | Gamma Chi | New Mexico State University |
| 1937-38 | Epsilon | Pennsylvania State University | 1975-76 | Gamma Chi | New Mexico State University |
| 1938-39 | Sigma | Carnegie Mellon University | 1976-77 | Gamma Theta | University of Missouri-Rolla |
| 1939-40 | Delta | Illinois Institute of Technology | 1977-78 | Beta | Purdue University |
| 1940-41 | Beta Zeta | New York University | 1978-79 | Xi | Auburn University |
| 1941-42 | Kappa | Cornell University | 1979-80 | Xi | Auburn University |
| 1942-47 | No Awards Made | (World War 2) | 1980-81 | Gamma Theta | University of Missouri-Rolla |
| 1947-48 | Delta | Illinois Institute of Technology | 1981-82 | Beta | Purdue University |
| 1948-49 | Delta | Illinois Institute of Technology | 1982-83 | Beta | Purdue University |
| 1949-50 | Beta Pi | City College of New York | 1983-84 | Beta | Purdue University |
| 1950-51 | Beta | Purdue University | 1984-85 | Beta | Purdue University |
| 1951-52 | Beta Alpha | Drexel University | 1985-86 | Beta | Purdue University |
| 1952-53 | Beta Alpha | Drexel University | 1986-87 | Beta | Purdue University |
| 1953-54 | Gamma Theta | University of Missouri-Rolla | 1987-88 | Beta | Purdue University |
| 1954-55 | Gamma Theta | University of Missouri-Rolla | 1988-89 | Beta | Purdue University |
| 1955-56 | Upsilon | Univ of Southern California | 1989-90 | Beta | Purdue University |
| 1956-57 | Beta Nu | Rensselaer Polytechnic Inst | 1990-91 | Beta | Purdue University |
| 1957-58 | Gamma Theta | University of Missouri-Rolla | 1991-92 | Beta | Purdue University |
| 1958-59 | Gamma Theta | University of Missouri-Rolla | 1992-93 | Beta | Purdue University |
| 1959-60 | Gamma Theta | University of Missouri-Rolla | 1993-94 | Beta | Purdue University |
| 1960-61 | Beta Epsilon | University of Michigan | 1994-95 | Beta | Purdue University |
| 1961-62 | Gamma Theta | University of Missouri-Rolla | 1995-96 | Alpha | Univ. of Illinois - Urbana |
| 1962-63 | Beta Pi | City College of New York | 1996-97 | Beta | Purdue University |
| 1963-64 | No National Winner | | 1997-98 | Beta | Purdue University |
| 1964-65 | Rho | University of Colorado | 1998-99 | Beta | Purdue University |
| 1965-66 | Beta Pi | City College of New York | 1999-00 | Beta | Purdue University |
| 1966-67 | Beta Pi | City College of New York | 2000-01 | Beta | Purdue University |
| 1967-68 | Gamma Xi | University of Maryland | 2001-02 | Mu | Univ of California - Berkeley |
| 1968-69 | Beta Alpha | Drexel University | 2002-03 | Mu | Univ of California - Berkeley |
| 1969-70 | Gamma Gamma | Clarkson College of Tech | | | |

BRIDGE COVERS AND LOGOS FROM OUR FIRST CENTURY



ETA KAPPA NU HONOR SOCIETY

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Recognizing Leaders of Today and Tomorrow*

