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

TheEta 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
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 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 guests of this event 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 a society 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 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 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 who have recognized throughout the past century. It relays 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 ties together over two hundred thousand members that are dedicated to excellence in electrical and computer engineering.

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Eta Kappa Nu Association
The Electrical and Computer Engineering Honor Society
Founded October 28, 1904

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Larry Overy, Chair

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

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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 shoulders of Aphrodite. However, it is well known and fully accepted that worthy ideas as well as marvelous machines do not sprout; they evolve through painstaking development. Furthermore, to have credited the founder of Eta Kappa Nu with having obtained his ideas as a dream while sleeping would be gross insult. True, Maurice L. Carr was a "dreamer," as are most men of vision, but his dreams were spiritual daydreams and he had the mental and physical faculties and energy to carry them through, and the perscrucible nature of others to use their brains and brains in teamwork-like true rehearsals and inventors of today.

At the installation of Beta-Delta Chapter in 1937, "ML" said he did not recall distinctly 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 1934, 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 the other classmates. "Army," who was born September 30, 1874, was almost three years "ML's" senior. As founder Edmund Wheeler had pointed out, "He and ML were considerably elder 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 social 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. Aker, 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 29, 1904, and wandered to a shady spot under a large cottonwood tree in the middle of a 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, members elected to 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. Bridgess and Halden B. Greene, both seniors, had by then consented to participate and it is fairly well established that Otto Wiener 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. 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 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 judgment 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
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 plan for membership certificates were made up early in 1905 and the certificates were delivered in time for commencement.

While HKK was strictly a "local" when organized, the foundations of a "national" were so strong that when the chapter assembled for the 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 EEs in Midwestern schools heard of the society and petitioned for a chapter. 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 officials. 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 Bera 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 one chapter a year to 1916.

Scholarship 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—students are members 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 HKK 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 these 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 inductee 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.

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 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 held then in its infancy—but left at the end of the year to assume charge of the electrical testing department of the Pozite 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's Night School for two 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 "HAEKTPO." 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 reinstated 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 2.
First general revision of the constitution, which now includes scholarly 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. Umhofer elected as First Executive Secretary.

1930 Biennial Convention Authorized.

1931 Leland A. Spangler elected as second Executive Secretary.

1932 College Vocation Program begins.
Outstanding Chapter Activities Award established.

1934 Alton B. Zebry elected executive secretary and serves until 1957. HKN national HQ office moves to Dillsburg, PA.

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 comic book 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)(3) 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 IA alumni chapter. Later renamed the "Zebby-Koerner Outstanding ECE Student Award.


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 reassert 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, with a focus on future charitable organizations.

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-deductible.
Eta Kappa Nu Centennial banquet and centennial student leadership conference held at University of Illinois.

The first issue of The Bridge magazine was published in 1910. It was 8.5 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 first edition did not contain a number volume, but has retroactively been labeled as Volume 6. The first issue of The Bridge was correctly labeled as volume 7.
Eta Kappa Nu grew from an idea into a working chapter and has experienced a growth to 211 chapters throughout the United States. Therefore, the society has become the vigorous organization that it is now required to be far more than a passing fad. That our founders had faith in our 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.

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<th>Chapter</th>
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Eta Chapter is a chapter-at-large which provides membership for outstanding students in colleges which do not have sufficient enroll- ing membership to form a chapter. Eta Chapter has no formal organ- ization and has no vote in the convention. Many chapters start out as an Eta chapter before becoming a full-fledged installed chapter.
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 264 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 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 toast. Gowen, an HKN emeritus 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 raise 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 casserole.

**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 its 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-

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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.

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Special etched crystal momentos 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 (ECEDNA). A final centennial crystal momento (shown below) remains on display at the HKN National Headquarters.
berness. 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 Gonen, president of the IEEE, presided over the dedication ceremonies held at the IEEE's lunchtime seminar on the IEEE's 100th Anniversary. Gonen announced the dedication ceremonies would be held at the IEEE's lunchtime seminar on the IEEE's 100th Anniversary. Gonen stated that the IEEE has a unique character among entities of standing in the world. However, the IEEE has a distinct character among entities of standing in the world.

SPECIAL GUESTS

Chrow assumptions, the 2005 president of IEEE addressed the banquet to convey congratulations from IEEE's board of directors. IEEE has over 340,000 members worldwide. Anderson stated that the vision 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 he be a member of IEEE he asked to join; but to be a member of Eta Kappa Nu, he was chosen. Fern Karonowsky, the executive director of the IEEE Foundation shared some of the IEEE Foundation's most recent benefits. Fern has also been a major contributor and administrator for the IEEE 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 Proficiency in Engineering Leadership, book. Anderson and Karonowsky expressed their appreciation to the IEEE Foundation for the support that these organizations provide 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 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 the centennial to ACHS, which Viehland accepted.

Jim Froula, Tau Beta Pi's national executive director, presented Tau Beta Pi. Froula spoke briefly to convey congratulations from Tau Beta Pi to ACHS. Froula said that 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 Stryten accepted. HKN reciprocated by presenting a special engraved crystal memento of the centennial to Tau Beta Pi.

Steven Goodnick represented the Electrical and Computer Engineering Department Heads Association, ECEDA, and conveyed their congratulations to HKN. Dr. Goodnick is the 2005 president of ECEDA 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 ECEDA 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 ECEDA and HKN. ECEDA was also present with the special engraved crystal memento from HKN commemorating its centennial.

CONCLUDING ACTIVITIES

The banquet concluded with the presentation of the 2004 Outstanding ECE student awards by the LA Alumni Chapter. Tom Rohrwater, president of the LA alumni chapter presented the awards. Two winners were recognized this year, Matthew C. Rodrigue and Matthew R. Behernd. 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 cornerstone 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.
STUDENT LEADERSHIP CONFERENCE

HOSTED BY ALPHA CHAPTER – OCTOBER 22-24, 2004

by Ron A. Spanke, Ω ’82

W e at Alpha Chapter are honored to have eminent speakers/pianists, 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 induct 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 for enough. Though many of you are established leaders on campus, in our societies and also in Eta Kappa Nu, this 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 the many talented 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 us with this important event.

-Welcoming statement from Byron Man, Alpha Chapter President

F riday 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 excusing 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 barbecue 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 updates 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 icebreaker 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 Matternstock 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 committee 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, several University of Illinois organizations contributed their sponsor-ship 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 discipline.

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

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

HKN national president Karl Matternstock 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 a successful conference. As everyone headed home, we all pondered where and when 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 5, 1956, the Bowl Bowl became the subject of the first transmission of a transatlantic telecast. As a result of this, 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-reflected mode to avoid reflecting high energy levels back into the magnetron. This new concept required tremendous creative effort and, since testing occupied 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 Hareline, 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 small antenna with its narrow beam that had to be pointed at the transmitting mobiles, thereby ultimately increasing capacity. Using existing equipment it was simple and low-cost, yet innovative. Today the small 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 AASAS 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 intuitional beyond belief," said Jerry Sanders, who has described himself as "an American dream kind of guy." Rising to success from poor begin nings 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 dif fered from theirs, and he was fired. Sanders decided to form Advanced Micro Devices (AMD) of Sunnyvale, CA, to sell Intel clones as plug-in replacements using some with the generic code number for the component. Over the years he was used by Intel and others, but won every law suit against AMD because "alpha-numerics" cannot be trademarked. In 1975 he had his first epiphany that "microprocessors rules" and went the wave of the future. Later, his second epiphany was that AMD should offer customer 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-profits and profits will follow.

First of all, he explained, take care of your customers, next the engineers develop the product, and then focus on management. Sanders honours management but he "defines 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 26, 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. He once said "I can die, but I can't fail... Failure is not a possibility. ENCOURAGING others, he tells young engineers to "display great" mentors and guides. Sanders told the students, "After you get your education, get in the game and change the world...(The future) will be about information technology and you are at the core of it.


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 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 drop actions that aren't working. Upon liberation, he attended the Universities of Lusanne and Geneva in Switzerland, earning a Dipl. Ing. degree in EE in 1948 at the Swiss Federal Institute of Technology (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 to oil taskers and other non-defense 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 technology 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 the IEEE Medal of Honor. 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 Green, Eric Herz, Jim Melts, Jo Warn, Alan LeoKow, Frank Weimer, Tom Rothwell, and Jack Farley.
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. MASON 1946 F. H. PUMPHREY
1905 C. E. ARMSTRONG 1931 G. H. KELLEY 1947 R. W. FOUSS
1905 C. H. KELLEY 1932 G. H. KELLEY 1947 H. W. FURNE
1906 A. F. McCLEE 1932 J. M. NEWMAN 1947 E. E. SANFORD
1907 C. C. CARR 1933 E. F. WATSON 1948 J. E. HOBSON
1908 C. T. EVANS 1934 A. F. WEBER 1948 W. J. LYMAN
1907 B. T. ANDERSON 1934 E. E. WATSON 1949 W. T. WILLIAMS
1909 L. H. HARRIS 1934 C. H. MACDONALD 1949 T. W. SPANGE
1909 A. R. KNIGHT 1934 L. A. SPANGLER 1949 T. W. SPANGE
1911 A. H. HEITMAN 1934 R. I. WILKINSON 1951 F. J. HALLENEBECK
1911 A. B. ZEBRY 1934 N. L. BEST 1951 C. B. HOLT
1913 R. H. WEBB 1934 J. M. SUMMERS 1951 J. M. MONSTREEM
1913 B. F. MILLER 1934 C. A. FAUST 1951 A. NAEGER
1915 H. S. COOKLIN 1934 W. J. HERRMAAN 1951 S. R. WARRREN
1917 J. M. SMITH 1934 M. BUCK 1952 O. W. ESCHBACH
1918 F. T. BANGS 1934 L. A. DOGGETT 1952 G. W. ESCHBACH
1918 D. C. EVANS 1934 C. B. HORFSMA 1953 C. T. KERNER
1918 A. C. GRAYSON 1934 V. E. LOWDEN 1954 E. E. GRAZDA
1919 P. MCCULLEY 1934 H. R. REED 1954 J. G. TAIROUS
1919 J. B. KELLY 1940 B. F. WARNER 1955 L. DROWN
1920 J. M. SPALG 1940 M. S. MILROY 1955 J. W. RITENHOUSE
1921 G. S. WATSON 1941 H. N. WALKER 1955 L. W. RITENHOUSE
1922 L. F. SEABOLD 1941 J. J. CASIDY 1955 C. F. HILL
1924 J. E. ZOLLINGER 1941 H. A. DAUBLY 1957 C. M. HYDE
1925 A. A. HOL Поэтому 1942 C. C. DASH 1957 R. E. NOLTE
1925 J. W. WING 1942 L. F. HUNT 1957 M. B. REED
1925 B. F. BROOKS 1942 F. M. STARR 1957 F. D. RYDER
1925 M. C. HALE 1943 R. BEACH 1958 J. H. CRAIG
1926 E. S. LEE 1943 F. E. HARRELL 1959 G. T. HARRISE
1928 C. H. REEDER 1944 N. S. HIRSHMAN 1959 J. A. M. LYON
1930 J. S. BELL 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.

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 1929, 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. Unhauofeer
1931-34 Loyald, A. Spangler
1934-50 Alton B. Zerby, Epheus '10
1950-56 Alton B. Zerby, Epheus '10
1956-64 Paul Hudson
1958-88 Paul Hudson, Alpha '50
1968-88 Paul Hudson, Alpha '50
1988-99 J. Robert Benne, Nu '55

Reflections from the DSA Committee Chair:

It is thrilling 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.

The 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 attained by members listed here attest to the value of voluntary effort.

-Larry Demm

Distinguished Service Award Recipients

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
<th>Years of Service</th>
</tr>
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<tbody>
<tr>
<td>1971</td>
<td>Alton B. Zerby</td>
<td>47</td>
</tr>
<tr>
<td>1972</td>
<td>Roger I. Wilkinson</td>
<td>61</td>
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<tr>
<td>1973</td>
<td>Clifford A. Faust</td>
<td>41</td>
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<tr>
<td>1974</td>
<td>C. Holmes MacDonald</td>
<td>41</td>
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<tr>
<td>1975</td>
<td>Carl T. Koerner</td>
<td>44</td>
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<tr>
<td>1976</td>
<td>Larry Dwon</td>
<td>43</td>
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<tr>
<td>1977</td>
<td>Edwin B. Kurtz</td>
<td>30</td>
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<tr>
<td>1978</td>
<td>Everett S. Lee</td>
<td>30</td>
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<tr>
<td>1978</td>
<td>Loyald A. Spangler</td>
<td>40</td>
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<tr>
<td>1979</td>
<td>John E. Farley</td>
<td>56</td>
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<tr>
<td>1979</td>
<td>Paul K. Hudson</td>
<td>38</td>
</tr>
<tr>
<td>1980</td>
<td>Berthold Sheffield</td>
<td>55</td>
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<tr>
<td>1980</td>
<td>Marcus Dodson</td>
<td>55</td>
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<tr>
<td>1980</td>
<td>Tony Gabrielle</td>
<td>34</td>
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<tr>
<td>1983</td>
<td>Thomas L. Rothwell</td>
<td>54</td>
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<tr>
<td>1983</td>
<td>John A. Tucker</td>
<td>51</td>
</tr>
<tr>
<td>2000</td>
<td>Donald Christiansen</td>
<td>51</td>
</tr>
<tr>
<td>2002</td>
<td>Alan Lefkow</td>
<td>39</td>
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<tr>
<td>2002</td>
<td>Robert F. Ahearth</td>
<td>53</td>
</tr>
<tr>
<td>2004</td>
<td>James A. D'Arcy</td>
<td>32</td>
</tr>
</tbody>
</table>

District Bridge-shaped DSA frame and citation presented to DSA recipients.
THE VLADIMIR KARAPETOFF OUTSTANDING TECHNICAL ACHIEVEMENT AWARD

This majorEta Kappa Nu award for career technical achievement is made annually to an electrical engineering practitioner who has distinguished himself/herself through an invention, a development, or a discovery in the field of electrotechnology which resulted in significant benefit 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 microwave and optics
2004 Yau Chau Ching, for development of the Synchronous Optical Network (SONET)
OUTSTANDING Young Electrical Engineer AWARDS

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, theEta Kappa Nu OYEE recognition was created to "emphasize among electrical engineers that their service to mankind is manifested not only in 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 35 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.


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 1951 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, National Director, finance committee and financial counselor. IKN representative to the Association of College Honor Societies, and his instrumental work is helping to establish the HKN Outstanding Teacher Award program.

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 D. 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. Meshe Kam
1992 Dr. Barry W. Johnson
1993 Dr. Donice Dee Denton
1994 Dr. Bruce L. Walcott
1995 Dr. Joel C. Catherino
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

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 30 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 36 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.

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
Cornell University
University of North Dakota
Mississippi State University
University of Missouri-Rolla
The Outstanding Electrical Engineering Student Awards

The OCTES award program recognizes selected students each year who typify the best balance of scholarship, service, activity, leadership, and character. Initiated 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 OCTES 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.

<table>
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<tr>
<th>YEAR</th>
<th>NATIONAL WINNER</th>
<th>UNIVERSITY</th>
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<td>1985</td>
<td>Roger A. Davidson</td>
<td>Epsilon Eta, Rose-Hulman Institute of Technology</td>
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<tr>
<td>1986</td>
<td>John M. Steinke</td>
<td>Theta Rho, Rice University</td>
</tr>
<tr>
<td>1987</td>
<td>Spencer Green</td>
<td>Theta Rho, Rice University</td>
</tr>
<tr>
<td>1988</td>
<td>Mark Harold Samerville</td>
<td>Psi, University of Texas - Austin</td>
</tr>
<tr>
<td>1989</td>
<td>Stephen A. Boppard</td>
<td>Alpha, University of Illinois</td>
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<tr>
<td>1990</td>
<td>Geoffrey W. Burt</td>
<td>Zeta Pi, State University of New York - Buffalo</td>
</tr>
<tr>
<td>1991</td>
<td>Tracey Lynn Wallen</td>
<td>Delta Pi, Colorado State University</td>
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<tr>
<td>1992</td>
<td>Susan Carol Gagnon</td>
<td>Beta Tau, Northwestern University</td>
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<td>1993</td>
<td>Kenton L. Erard</td>
<td>Beta Kappa, Kansas State University</td>
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<tr>
<td>1994</td>
<td>Andrew L. Sears</td>
<td>Gamma Theta, University of Missouri-Rolla</td>
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<tr>
<td>1995</td>
<td>Michelle C. Munson</td>
<td>Beta Kappa, Kansas State University</td>
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<td>1996</td>
<td>Ryan James Mattison</td>
<td>Nu, Iowa State University</td>
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<tr>
<td>1997</td>
<td>Ashwin Viswanathan</td>
<td>Beta Theta, Massachusetts Institute of Technology</td>
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<tr>
<td>1998</td>
<td>Jaime Ann Molan</td>
<td>Beta Xi, University of Oklahoma</td>
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<td>1999</td>
<td>Wesley J. Bolten</td>
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<td>Kevin Frederick</td>
<td>Sigma, Carnegie Mellon University</td>
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<td>2002</td>
<td>Joseph Tobias Case</td>
<td>Gamma Theta, University of Missouri - Rolla</td>
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</table>
### 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.

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ETA KAPPA NU HONOR SOCIETY

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