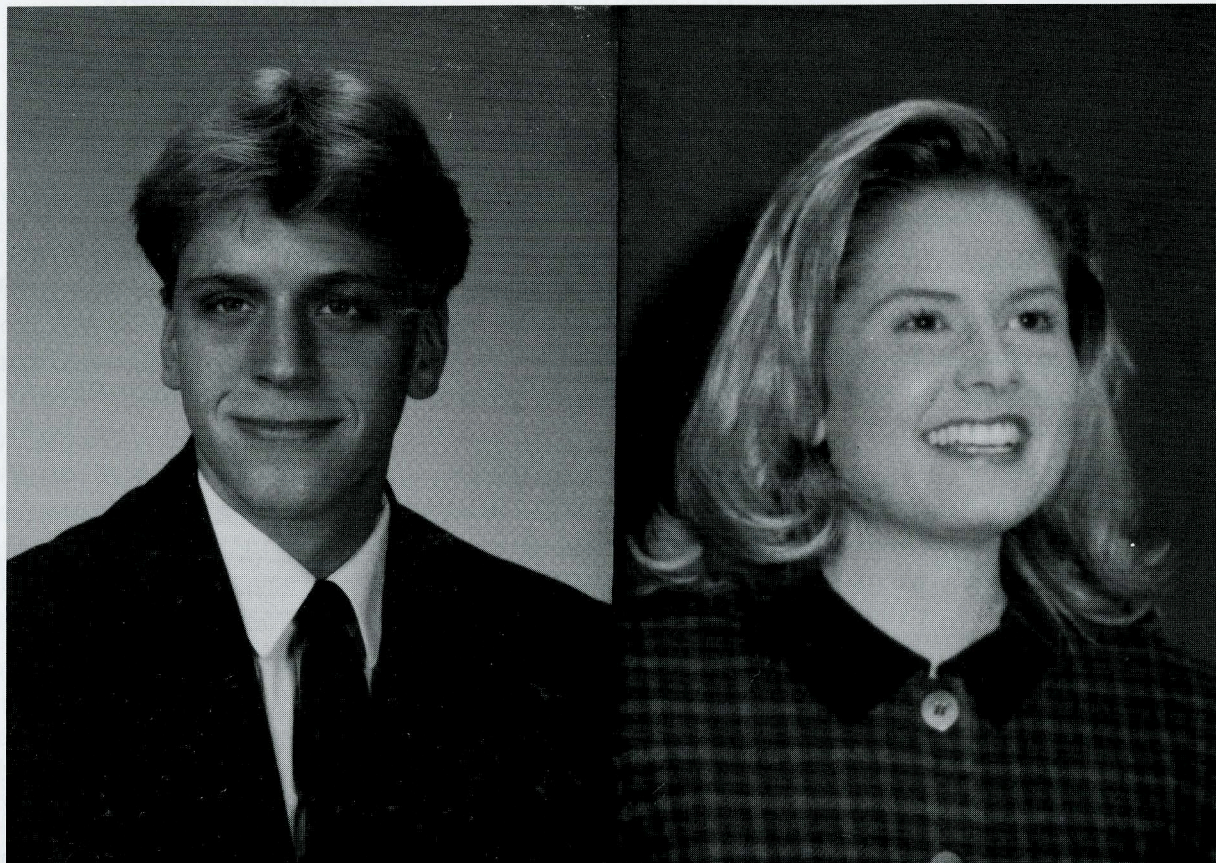


BRIDGE of Eta Kappa Nu



Andrew L. Sears
Outstanding EE Student
Wins
Zerby-Koerner Award

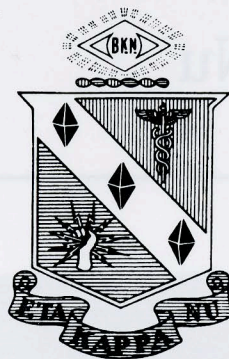
Michelle C. Munson
Outstanding EE Junior
Wins
Norman R. Carson Award

1995 WINNERS

**Also Featured: Michigan's Honorable
Mention Report**

**Kappa Kappa Chapter Installed
University of Texas at Dallas**

**Kappa Lambda Chapter Installed
University of Memphis**



Editor and Business Manager
J. Robert Betten

February 1996
Vol 92 - No. 2

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

The BRIDGE is published four times annually—November, February, May, August and is published by Eta Kappa Nu, Haywood Printing Company, 5th & Ferry Sts., Lafayette, Indiana. Second class postage paid at Lafayette, Indiana. Eta Kappa Nu Association, Subscription price: three years, \$15, Life Subscription, \$60.

Address editorial and subscription correspondence and changes of address to:

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

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

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Contents

Announcements

3 Paul K. Hudson HKN
Development Fund
Annual Giving Campaign

13 Vladimir Karapetoff
Eminent Members' Award

Awards

4 Zerby-Koerner Outstanding
EE Student Award

8 Norman R. Carson Outstand-
ing EE Junior Award

18 Outstanding Chapter Award
Honorable Mention Winner

Honors and Achievements

10 Theodore W. Hissey, Jr.,
Karen Brailean, and Gloria
Montano are Recognized

Historical Notes

11 Cooper Hewitt Lamps
by George Taylor

12 HKN Eminent Member
Listing is presented

New Chapter Installations

14 Kappa Kappa Chapter, Uni-
versity of Texas at Dallas

16 Kappa Lambda Chapter,
University of Memphis

15. Extent and Nature of Circulation	Average No. Copies Each Issue During Preceding 12 Months	Actual No. Copies of Single Issue Published Nearest to Filing Date
a. Total No. Copies (Net Press Run)	16,696	16,505
b. Paid and/or Requested Circulation (1) Sales Through Dealers and Carriers, Street Vendors, and Counter Sales (Not Mailed)	0	0
(2) Paid or Requested Mail Subscriptions (Include Advertisers' Proof Copies/Exchange Copies)	16,263	16,345
c. Total Paid and/or Requested Circulation (Sum of 15b(1) and 15b(2))	16,263	16,345
d. Free Distribution by Mail (Samples, Complimentary, and Other Free)	0	0
e. Free Distribution Outside the Mail (Carriers or Other Means)	0	0
f. Total Free Distribution (Sum of 15d and 15e)	0	0
g. Total Distribution (Sum of 15c and 15f)	16,263	16,345
h. Copies Not Distributed (1) Office Use, Leftovers, Spoiled (2) Return from News Agents	434	160
i. Total (Sum of 15g, 15h(1), and 15h(2))	16,696	16,505
Percent Paid and/or Requested Circulation (15c/15g x 100)	100	100
16. This Statement of Ownership will be printed in the issue of this publication. Check box if not required to publish.		
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PAUL K. HUDSON HKN DEVELOPMENT FUND ANNUAL CAMPAIGN

Paul K. Hudson
1916-1988



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

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

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

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

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

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

_____ Distinguished Fellow (\$2000 and above)

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

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

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

_____ Fellow (\$25 - \$99)

with the enclosed contribution of \$_____.

_____ I wish to pledge a total of \$_____ to the Hudson Fund, at \$_____ per year for _____ years, beginning _____.

NAME _____

ADDRESS _____

CITY, STATE, ZIP CODE _____

Return to: Eta Kappa Nu International Headquarters
Box HKN

University of Missouri-Rolla
Rolla, Missouri 65409

Zerby-Koerner Student Profile

The Alton B. Zerby and Carl T. Koerner Outstanding Electrical Engineering Student is outstanding by virtue of his/her scholastic excellence and high moral character; coupled with demonstrated exemplary service to classmates, university, community, and country.

Among the purposes which Eta Kappa Nu expects to achieve by the operation of this program are: Honor annually the outstanding electrical engineering student by providing accepted recognition of accomplishments in this field; Recognize the outstanding electrical engineering student's school; Motivate electrical engineering students to earn membership in Eta Kappa Nu; Distinguish the undergraduate chapter of Eta Kappa Nu from which the outstanding EE student was chosen; Provide additional opportunity for publicity and recognition of the Eta Kappa Nu Association and its objectives; and Encourage electrical engineering schools not having a chapter of Eta Kappa Nu to qualify and establish a chapter.

Inaugurated in 1965 as the Outstanding Electrical Engineering Student Award Program of Eta Kappa Nu, it has become a traditional means of providing recognition to deserving Electrical Engineering Students in the United States of America. In 1975 the name was changed to "The Alton B. Zerby Outstanding Electrical Engineering Student Award" to honor and perpetuate the memory of Mr. Zerby, a long time leader and Executive Secretary of Eta Kappa Nu, who was dedicated to the students. In 1993 the name was further changed to include Carl T. Koerner, to honor and perpetuate the memory of brother Carl, who had a lifelong dedication to Eta Kappa Nu, including serving as its President; and his selection as the fifth recipient of the prestigious Eta Kappa Nu Distinguished Service Award in 1975 in recognition of his contributions to electrical engineering and Eta Kappa Nu.

This award considers not only the scholastic achievements of the stu-

(Continued on Page 7)

THE ALTON B. ZERBY and CARL T. KOERNER OUTSTANDING ELECTRICAL ENGINEERING STUDENT AWARD 1995

Anaheim, California
July 15, 1995

Text by
Marcus Dodson

THE INTERNATIONAL ETA KAPPA NU ASSOCIATION 1995

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JURY OF AWARD

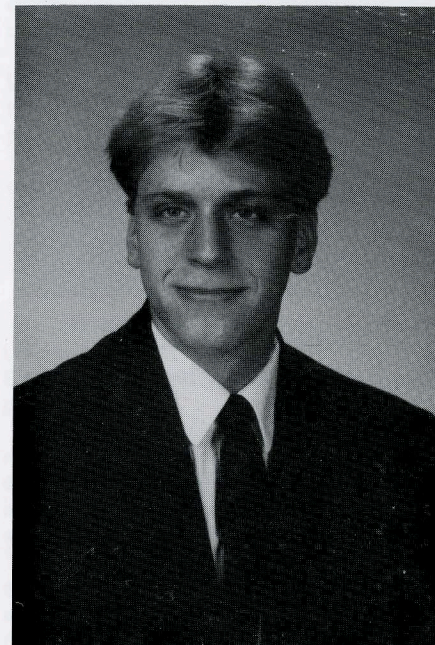
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Junior Past President	Donald S. Stoica

Student Award Winner

THE ALTON B. ZERBY and CARL T. KOERNER OUTSTANDING ELECTRICAL ENGINEERING STUDENT AWARD 1995



ANDREW LESTER SEARS
Winner

ANDREW LESTER SEARS, with a GPA of 4.0, ranking first in his class of 212 EE seniors, graduating summa cum laude, was nominated by the Gamma Theta Chapter of the University of Missouri-Rolla. He is a member of IEEE and has been honored with membership in Phi Eta Sigma and Phi Kappa Phi as well as Eta Kappa Nu.

He has written "A Multimedia Manual on the Internet for Telecommunications Equipment" that was submitted to IEEE Transactions on Education for publication. He presented a paper "The Internet and the University" to the Board of Curators (governing board of the four University campuses) discussing how the Internet could be used to help the students.

He is performing research in the Applied Optics Laboratory to detect strain or damage in aircraft and submarines. This is sponsored by the US Navy. Andrew was awarded a Department of Defense Fellowship but declined in favor of a National Science Foundation Graduate Fellowship which is larger and broader based.

Andrew has served as a missionary to South Africa and Kansas City Union Mission. On each occasion his efforts centered on homeless and neglected children. As a leader of student government and president of Student Council he instituted video conferences and Internet, both on campus and inter-campus. The Internet and E-mail was effectively used for communication among student leaders. Another use is to compile and distribute biographies, voting records, speeches, etc., for the Republican presidential primary. He declined the nomination by the Governor of Missouri to be Student Representative to the Board of Curators in order to serve as Student Body President.

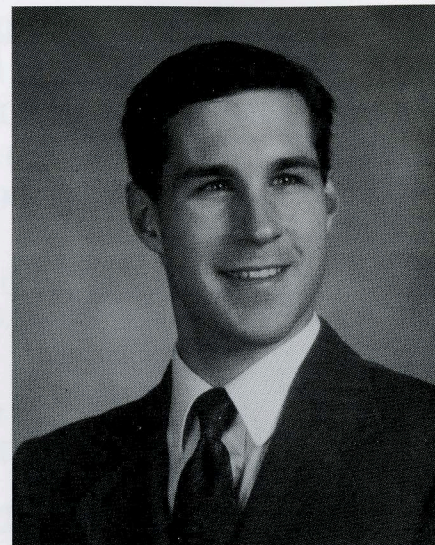
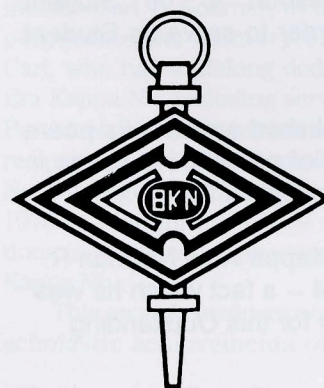
Mr. Sears is also a non-technical published writer. His poem "The Eagles" appears in the National Library of poetry. He keeps in shape with basketball, soccer, volleyball and weight lifting.

It is noteworthy that Andrew won Eta Kappa Nu's Norman R. Carson Outstanding EE Junior Award for 1994 -- a fact which he was too modest to mention on his nomination form for this Outstanding Electrical Engineering Student Award.

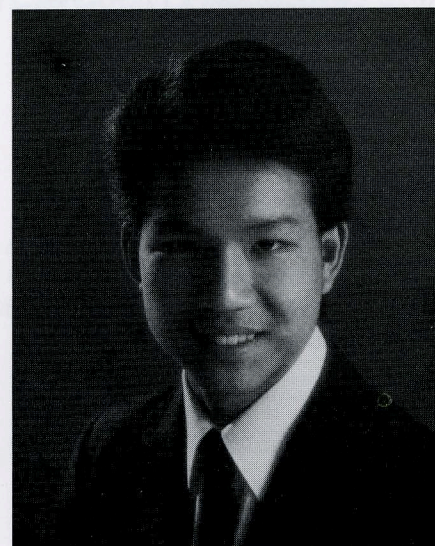
THE
ALTON B. ZERBY
OUTSTANDING ELECTRICAL
ENGINEERING STUDENT
AWARD
1995



Genevieve B. Melton
Honorable Mention



Jeffery T. Eschbach
Honorable Mention



Gin Sun Yee
Honorable Mention

JEFFERY T. ESCHBACH was nominated by the Beta Chapter at Purdue University. He is a member of SWE, IEEE, and has been honored with membership in Golden Key and Tau Beta Pi as well as Eta Kappa Nu.

Jeffrey has been awarded a National Science Foundation Fellowship for 1995. As a class project he designed a voice/sound digitizer which could record, modify and play back audio samples, and also designed, simulated and tested a VLSI chip to control a game board, among many other projects. While working at Intel Corporation he designed a board to interface with a VESA (Video Electronics Standards Association) local bus within a personal computer. A patent was applied for through Intel. At Rockwell International he designed and tested an ASIC (application specific integrated circuit) chip for data flow control and timing of a modem.

Jeff assisted at the Lafayette Homeless Shelter as clerk, server, janitor, etc., Little League coach and worked with needy children. At school he organized a campus-wide tutoring program, monthly social events to promote professor/student interaction, school picnic and other student outings. At Intel he was chairman of the sports committee.

He is a member of the Purdue roller hockey team and plays ice hockey, golf and volleyball. On the quiet side he enjoys painting, computer strategy games and study of Japanese language and culture.

GENEVIEVE B. MELTON was nominated by the Delta Zeta chapter at the Washington University in St. Louis, Missouri. She is a member of Tau Beta Pi and received a BS in Electrical Engineering, a BS in Computer Science, a BA in Mathematics, and a minor in physics.

In a cooperative education program between the school and Monsanto Company, she managed all aspects of a Local Area Network composed of over 400 workstations and servers on both Ethernet and Token-Ring technology. She was involved in research projects in Signal Processing on an auditory grant modeling synaptic cell membrane potentials using stochastic processes and other modeling. She also teaches two classes.

She has a unique ability to organize and get cooperation in team projects, both school assignments and service activities. She served the Engineering school as a tour guide, lunch host, peer advisor and tutor. She is co-founder of "Shades", an organization for multi-racial students.

Genevieve is an athlete. She was captain of of the Varsity Track and Field and was awarded the GTE Academic/Athletic NCAA All-District team and All-University Association Honors. She served on the University advisory Board on Planning & Appropriation for the Athletic Department.

GIN SUN YEE, with a GPA of 3.93, ranking first in his class of 270 EE seniors, graduated summa cum laude. He was nominated by the Iota Upsilon chapter at the University of Washington in Seattle. He is a member of IEEE and has been honored with membership in Golden Key, Phi Eta Sigma and Tau Beta Pi as well as Eta Kappa Nu.

His research project for VLSI CAD design produced a paper entitled "Domino Logic Cell Generator". While working for the Puyallup Integrated Circuit Company as a contract engineer his duties included circuit and logic design, simulation, compiler design, layout and documentation of IC products. His responsibilities also included setup and maintenance of CAD software and equipment related to design activity. His computer skills are extensive.

Gin has worked as a volunteer for the Ronald McDonald House in support of the Children's Hospital. He instituted a code of honor for the EE Department and tutored engineering students. As president of IEEE and HKN he has instituted many services for the students and for the department.

Mr. Yee's interests are weight lifting, art graphics and design, chess and downhill skiing.

Finalists:

Christina Ann Cardarelli
Gloria Jiang
Matthew Paul Kupperman
Brian Colin Timberlake
Amy Gayle Weisbin

Pennsylvania State University
University of Louisville
University of Wisconsin-Platteville
Clemson University
University of California-Los Angeles

(Continued from Page 4)

dent but also pays attention to other attributes; participation in service to classmates and university in the form of curricular and extra-curricular activities, demonstrated interest in community and fellow human beings, and regard for country. These all play a vital part in the considerations leading to being selected. It also measures the student against the traditional yardstick established by Eta Kappa Nu in its goal of achievement of the well-rounded person; one who is neither a scholarly drudge nor a gregarious sport, but one that might be considered an appropriate combination of the best qualities of both.

Four years were spent in the development of this program by the Los Angeles Alumni Chapter of Eta Kappa Nu. Much thought and effort went into the structuring and development of the many features that are needed, and the procedures which must be followed to be assured that a truly representative selection of the top Electrical Engineering students have been examined before the designation of one of these individuals as the Outstanding Electrical Engineering Student.

The program, thoroughly reviewed with the National Executive Council and the Board of Directors during the preliminary stages of its development, is formally approved and authorized as an official program of the Eta Kappa Nu Association. The Los Angeles Alumni Chapter has been designated as the implementing organization and has been authorized by the Executive Council to conduct the program.

The award winner's travel and expenses are covered by financial support from the Alton B. Zerby Trust Fund. An honorarium for the winner is made possible by the Carl T. Koerner Memorial Trust Fund, established in 1978 by his widow Edie Koerner and a large number of Carl's relatives and friends. Both Trust Funds, were established to honor their namesakes, who made significant contributions to Eta Kappa Nu. The Trust participants and the Eta Kappa Nu Board of Directors felt it appropriate that earnings from the Trust Funds underwrite this award.

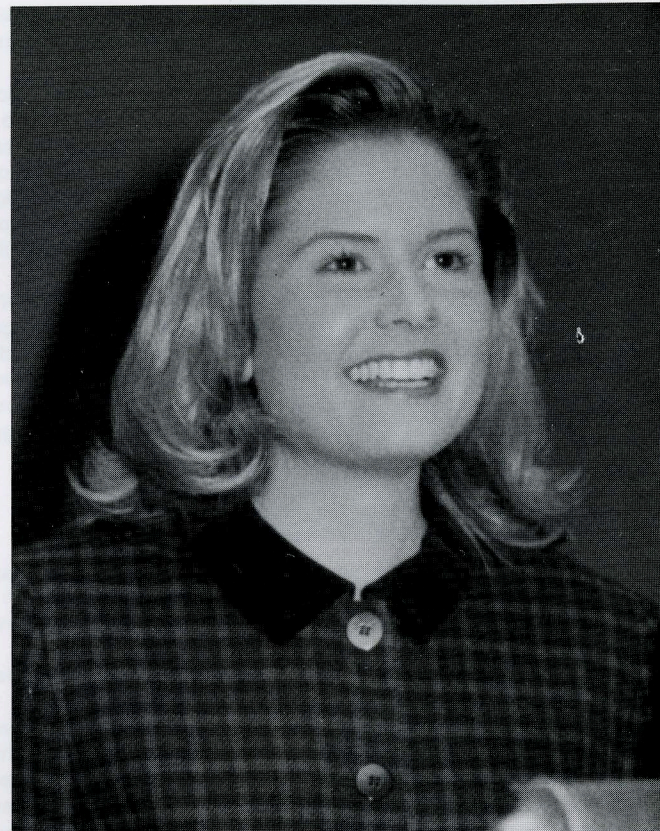
MICHELLE C. MUNSON

**WINS
NORMAN R. CARSON AWARD
AS**

OUTSTANDING EE JUNIOR

**by Michael Schoenfelder
and Richard R. Gallagher**

Editors Note: Material for this article is taken from the award applications, which were received in May 1995.



INTRODUCTION

Annual Program. Each year Eta Kappa Nu honors a junior in electrical engineering for his or her leadership abilities, scholastic and technical achievements, and service contributions. This award, the Norman R. Carson Outstanding Electrical Engineering Junior Award, was established by Mr. and Mrs. Carson to recognize the student's ability to lead, persuade, and influence the actions of others, as well as to recognize his or her diligence, intelligence and technical competence. The HKN Lone Star Alumni Chapter of Austin, Texas, which administers this award, received many outstanding applications. After careful consideration, one winner, one runner-up and four honorable mentions were selected.

Winner

Michelle Munson, Beta Kappa Chapter, Kansas State University

Runner-up

Keith Blackford, Gamma Theta Chapter, University of Missouri-Rolla

Honorable Mentions

Meghan Thornton, Alpha Chapter University of Illinois at Champaign-Urbana

Jovan D. Milosavljevic, Theta Mu Chapter, State University of New York at Stony Brook

Christopher Korpela, Iota Phi Chapter, United States Military Academy, West Point, New York

Christy Lawson, Epsilon Chi Chapter, University of Louisville

WINNER

MICHELLE MUNSON, BETA KAPPA CHAPTER, KANSAS STATE UNIVERSITY. Michelle C. Munson has been instrumental in leading, mentoring, and using her intellectual talents in a manner that has demonstrated strong leadership during her undergraduate education. The listing of her leadership positions and personal involvements is overwhelming. While being involved in numerous extracurricular activities, she has also demonstrated a keen intellectual drive as illustrated by her high class ranking. Michelle has been honored with membership in Phi Kappa Phi, Tau Beta Pi, and Eta Kappa Nu and has received several other University honors and scholarships. She has served as Chairman of the IEEE KSU student branch and chaired a Student Professional Awareness Conference. Recognition has been extended to the national level through the Barry M. Goldwater, Harry S. Truman, and the U.S. Presidential Scholarship Programs. Furthermore, Michelle has been a student representative to the national executive committee of the National Collegiate Honors Council and served as student editor of the

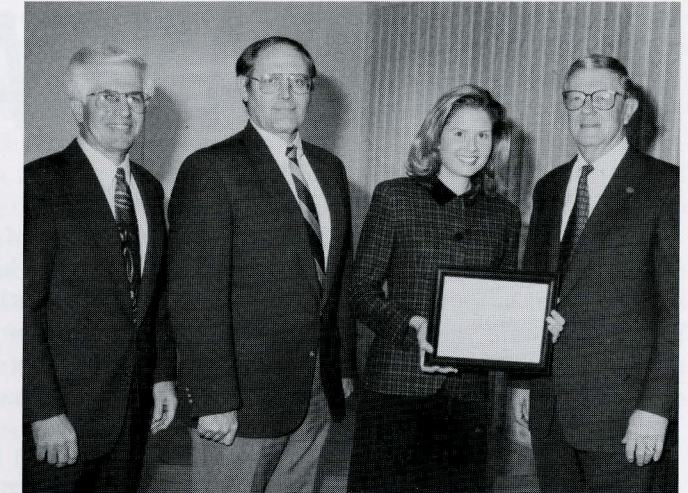


Michelle Munson responds with an expression of thanks

National Honors Report quarterly.

In the summer of 1993, Michelle participated in the Washington Internships for Students in Engineering (WISE) program. As one of two students in the United States to be selected by AIChE, this experience culminated with a policy thesis, "NAFTA and the Environment", and a companion summary article which was sent to each member of the U.S. Congress. She has played an active role in several academic research projects on campus. These have been very diverse in nature as exemplified by the topics: Genetic Recombination in Rad-3 Mutant Yeast Strains; High-Temperature Superconducting Magnetic Shields; Ionizing Radiation Damage in Integrated Circuits; and Genetic Research in Mental Illness.

Michelle was recently selected out of approximately 1,000 applicants by Glamour magazine as one of the Top Ten College Winners. During her undergraduate career she has shown a sensitivity to her fellow students and to the community through numerous service programs, student government, and her participation on University-wide committees. In her spare time, Michelle volunteers in her community, studies ballet, and runs cross country (KSU Intramural Champion). She has organized a community effort to establish a local Internet service provider and serves as Technology Development Director for the resulting cor-



Winner Munson is accompanied, from left to right, by HKN Faculty Advisor, Richard R. Gallagher; EECE Department Head, David L. Soldan; and Dean of the College of Engineering, Donald E. Rathbone

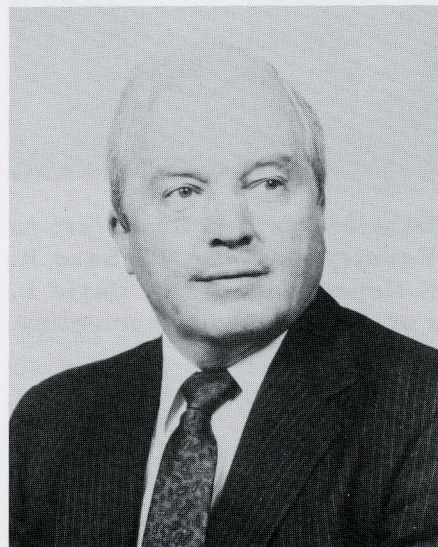
poration. Donald E. Rathbone, Dean of the College of Engineering at Kansas State University, made this summary comment regarding Michelle's qualifications as recipient of the Norman R. Carson Outstanding Electrical Engineering Junior Award. Michelle is "unquestionably one of the most outstanding young persons that I have met in my many years at Kansas State University. She is a remarkable young lady who will contribute greatly to her profession and to society." The Lone Star Alumni Chapter whole-heartedly congratulates Michelle Munson on her leadership and outstanding accomplishments.

RUNNER UP

KEITH BLACKFORD, GAMMA THETA, UNIVERSITY of MISSOURI-ROLLA. While maintaining an almost-perfect GPA, Keith Blackford has been very active in the university Student Council, where he has served as Vice-President. He has also chaired several student council committees and served on many other university committees. Keith was Vice-President of the Christian Campus Fellowship, where he organized four community service trips. He is first-chair tuba in the University Wind Ensemble and a member of Eta Kappa Nu, Phi Kappa Phi, Phi Eta Sigma, and IEEE. Keith plans to earn a Ph.D. and teach Electrical Engineering.

HONORS AND ACHIEVEMENTS

THEODORE W. HISSEY, JR.
APPOINTED IEEE EXECUTIVE
DIRECTOR



Theodore W. Hissey, Jr. of Erdenheim, PA, a principal engineer at Macro Corporation, Horsham, PA, has been elected to his second term as executive director by the Assembly of The Institute of Electrical and Electronics Engineers, Inc. (IEEE). In this capacity, he will serve as a member of the 1996 IEEE Board of Directors and Executive Committee. In 1995, Mr. Hissey was the first individual elected to this position to serve as a volunteer.

The IEEE is the world's largest technical professional society, with nearly 315,000 members in approximately 150 countries. The IEEE Assembly consists of 23 members in leadership positions, all of whom have been directly elected by the voting members. A world-leader in the electronic dissemination and retrieval of technical information, the IEEE generates and distributes more than 25 percent of the world's literature on electronics, electrical engineering, computer science, applied physics and information

technology.

A member of the Institute since 1947, Mr. Hissey has had a number of leadership positions including six previous terms on the IEEE Board of Directors serving as executive director in 1995; treasurer from 1991-93 and division director-Power Engineering and Energy-in 1988-89. He also has served on numerous IEEE committees and boards while also participating in the governing board of the IEEE Power Engineering Society for the past 26 years. In 1995, he was awarded the IEEE Emberson Award for outstanding service and worldwide technical contributions to electrical engineering.

Mr. Hissey has traveled to and worked in more than 40 countries conducting seminars, meetings and commercial activities. He has written and presented numerous technical papers and articles and conducted seminars mainly in power system automation. He is a member of the Tau Beta Pi, Eta Kappa Nu and Pi Mu Epsilon honorary societies. He received his bachelor's degree in electrical engineering from Penn State.

KAREN BRAILEAN
1995 SWE
DISTINGUISHED NEW
ENGINEER AWARD

Karen Brailean is a recipient of the 1995 Society of Women Engineers (SWE) Distinguished New Engineer Award. The Distinguished New Engineer Award was established to honor women engineers who have been actively engaged in the engineering profession with no more than ten years of cumulative engineering experience and who have demonstrated outstanding performance in engineering and leadership.

Brailean is a Senior Staff Engineer in Motorola Integrated Radio Systems (MIRS) Development

where she is responsible for MIRS system performance. She has been involved with MIRS technology since she joined Motorola, Inc. in 1989 and played a critical role in the first MIRS implementation. She led the team of engineers that tested and analyzed the MIRS prototype and was responsible for all aspects of MIRS System Technology transfer from research to development. Because of her in-depth knowledge, she is the technical expert who resolves the customer problems the field engineers cannot solve.

Brailean has been active in other organizations such as the Chicago Technical Exchange, a coalition of minority engineering societies, and the Motorola Technical Women's Network. She received a B.S. in electrical engineering from Purdue University and an M.S. in electrical engineering in 1989 from the University of Southern California. Her concentration was in communications systems.

The Society of Women Engineers (SWE) is a non-profit educational service organization of women and men dedicated to expanding the image of the engineering profession as a positive force in the quality of life. SWE has an international membership of more than 16,000 women and men with sections in 78 areas of the United States and Puerto Rico.

GLORIA MONTANO
ELECTED TO
SWE BOARD OF DIRECTORS

Gloria Montano has been elected to serve on the SWE Board of Directors as Vice President of Special Services for 1995-1996. Montano has been active on all levels of the Society serving as National Chair of the Publications Committee, producing the 1991 and 1992 SWE

Annual Report, as Co-Chair of the 1989 SWE National Convention/Student Conference held in Oakland, CA, and as President of the Santa Clara Valley Section. She also served as President of the Student Section at the University of Texas at El Paso where she received a B.S. degree in Electrical Engineering.

Ms. Montano is employed by Tandem Computers as a Program Manager responsible for managing the release of Tandem software products. Tandem is the industry

leader in continuously available, parallel on-line transaction processing systems, services and networks.

Among her awards and honors, she received the Chairmen's Achievement Award from Mentor Graphics, the Distinguished New Engineer Award from Society of Women Engineers, the Outstanding Service Award from Silicon Compilers Incorporated, and was nominated for Eta Kappa Nu Outstanding Young Electrical Engineer by the IBM Corporation. She is a member of the

Institute of Electrical and Electronics Engineers (IEEE), Tau Beta Pi, and Eta Kappa Nu.

The Society of Women Engineers (SWE) is a non-profit educational service organization of women and men dedicated to expanding the image of the engineering profession as a positive force in the quality of life. SWE has an international membership of more than 16,000 women and men with sections in 78 areas of the United States and Puerto Rico.

COOPER HEWITT LAMPS

(An Historical Note)

by

George J. Taylor, P.E.



In the early part of 1898, Dr. Peter Cooper Hewitt was engaged in experimental research which resulted in what was known as Cooper Hewitt lamps. He saw the possibilities with a lamp of this kind and felt it advisable to interest some large electrical manufacturing concerns with it. The General Electric Company was first approached, but after some deliberation it was felt that it was not advisable to undertake the purchase of the Cooper Hewitt patents.

The Westinghouse Electric & Manufacturing Company was confronted with the idea next and Mr. Westinghouse from a purely personal standpoint, not in connection with the company, became interested in the possibilities of such a lamp. An agreement was entered into between

Mr. Westinghouse and Dr. Hewitt on March 7, 1900, whereby Mr. Westinghouse agreed to finance the exploitation of a company for the development of Dr. Hewitt's ideas. It was further agreed that certain development work be carried on for a matter of a year with the purpose of then forming a corporation to manufacture and market the device.

By 1903 the Idea for general lighting was conceived and the name of Cooper Hewitt lamps became popular for lighting factories. Soon after that the Cooper Hewitt Electric Company was formed with headquarters in Hoboken, New Jersey. Shortly after that it became the General Electric Vapor Lamp Company.

The original lamps were made for direct current use and were 20 3/4" long. Later lamps were made for

alternating current for 110 and 220 volts. These modern lamps were 50 inches long, rated at 450 watts, 5625 lumens or 12.5 LPW of low pressure mercury vapor lights.

It's interesting to note that a publication known as World's Work published in 1932 a list of 55 outstanding American inventions that were patented between the years 1791 and 1930.

Among them are:

Steamboat	1791
Telegraph	1849
Sewing Machine	1862
Typewriter	1868
Telephone	1876
Trolley Car	1884
Safety Razor	1904
Airplane	1906
MERCURY VAPOR LIGHT	1912
Quick Freezing	1930

Eminent Member Listing: 1950 – 1993

EMINENT MEMBER	DATE INITIATED	TITLE AND AFFILIATION	THE BRIDGE		
			VOL.	NO.	PG.
V. BUSH	1-30-50	PRESIDENT, CARNEGIE INST. OF WASHINGTON	46	3	1
R. W. SORENSON	"	PROF. E.E., CALIFORNIA INST. OF TECHNOLOGY	"	"	"
V. K. ZWORYKIN	"	V. P. RCA LABORATORIES	"	"	"
F. E. TERMAN	1-22-51	DEAN, STANFORD UNIVERSITY	47	3	5
J. SLEPIAN	"	ASSOC. DIR. RES., W. E. CORP	"	"	"
K. B. MCEACHRON	"	MGR., GE CO. TRANSFORMER DIVISION	48	2	4
S. H. MORTENSON	"	CHIEF E.E., ALLIS CHALMERS MFG. CO.	"	"	5
W. H. TIMBIE	"	PROF. RETIRED; M.I.T.	"	2	5
L. DEFOREST	5-2-52	INVENTOR	48	3	1
E. C. MOLINA	1-19-53	BELL TELEPHONE LABORATORIES	49	2	9
H. PENDER	"	DEAN, MOORE SCHOOL U OF PENNSYLVANIA	"	"	10
C. A. POWEL	"	ASS'T. TO V.P.; WESTINGHOUSE ELECTRIC CORP.	"	"	12
P. SPORN	"	PRESIDENT, AMERICAN GAS & ELECTRIC COMPANY	"	"	13
W. R. G. BAKER	1-18-54	V.P. GENERAL ELECTRIC COMPANY			
M. J. KELLY	"	PRESIDENT, BELL TELEPHONE LABORATORIES			
R. RUDENBERG	"	PROFESSOR EMERITUS, HARVARD UNIVERSITY			
J. B. BLACK	4-20-54	PRESIDENT, PACIFIC GAS & ELECTRIC CO.	50	4	14
A. A. POTTER	10-16-54	DEAN EM., PURDUE UNIVERSITY	51	3	26
E. B. PAINE	"	PROF. EM., UNIVERSITY ILLINOIS	"	"	"
E. S. LEE	"	DIRECTOR ENGR'G.; G.E. CO.	"	"	"
E. F. W. ALEXANDERSON	1-31-55	RETIRED, GENERAL ELECTRIC CO.	51	3	14
A. N. GOLDSMITH	"	CONSULTANT	"	"	16
H. S. OSBORNE	"	BELL TELEPHONE LABORATORIES	"	"	18
H. A. WINNE	"	V.P. RETIRED GENERAL ELECTRIC CO.	"	"	20
J. B. WHITEHEAD	"	JOHNS HOPKINS UNIVERSITY	"	"	19
H. H. BEVERAGE	10-5-55	DIRECTOR RADIO RES., RCA LABORATORIES	52	1	19
L. N. MCCLELLAN	"	CHIEF ENGR., BUREAU OF RECLAMATION	"	"	19
W. D. COOLIDGE	1-30-56	ASS'T. DIR. RESEARCH LABS., G.E. CO.	52	3	12
H. NYQUIST	"	ASS'T. DIR. SYSTEMS, AT&T	"	"	14
L. N. BRILLOUIN	"	DIR. ELECTRONICS, IBM	"	"	12
J. H. DELLINGER	10-3-56	CH. RADIO TECHNICAL COMMISSION OF AERONAUTICS	53	2	14
W. B. KOUWENHOVEN	"	PROF. EM., JOHNS HOPKINS	"	"	15
D. A. QUARLES	10-14-58	U.S. DEPUTY SECRETARY OF DEFENSE	55	2	29
C. F. HOOD	10-30-58	PRESIDENT, UNITED STATES STEEL CORP.	"	"	33
P. L. ALGER	4-2-60	RETIRED, GENERAL ELECTRIC CO.	56	4	10
C. STARR	10-29-60	PRESIDENT, ATOMICS INTERNATIONAL	57	2	17
A. D. MOORE	9-10-61	PROFESSOR, UNIVERSITY OF MICHIGAN	58	2	18
J. L. BURNES	11-14-61	PRESIDENT, RCA	58	2	15
J. HILLIER	11-17-61	V.P. RCA LABORATORIES	58	1	23
C. F. WAGNER	11-20-61	CONSULTING ENGR. WESTINGHOUSE ELECT. CORP.	58	2	17
J. BARDEEN	3-29-62	PROFESSOR, UNIVERSITY OF ILLINOIS	58	4	10
L. V. BERKNER	"	PRESIDENT, GRADUATE RESEARCH CENTER, S.W., DALLAS	"	"	10
E. M. PURCELL	"	GERHARD GADE PROFESSOR, HARVARD UNIVERSITY	"	"	10
J. B. WIESNER	10-10-62	DIRECTOR RESEARCH LAB. FOR ELECTRONICS, M.I.T.	"	"	10
E. WEBER	11-5-62	PRESIDENT, POLYTECHNIC INSTITUTE OF BROOKLYN	59	2	17
G. S. BROWN	3-25-63	DEAN, M.I.T.	59	4	6
W. L. EVERITT	10-30-63	DEAN, UNIVERSITY OF ILLINOIS			
L. A. DUBRIDGE	8-25-64	PRESIDENT, CALIFORNIA INSTITUTE OF TECHNOLOGY	61	2	15
J. A. STRATTON	11-5-64	PRESIDENT, MASSACHUSETTS INSTITUTE OF TECHNOLOGY	"	"	21
D. G. FINK	11-4-65	GENERAL MGR., I.E.E.E.	62	3	14
S. RAMO	8-25-66	VICE CHAIRMAN OF BOARD, TRW INC.	63	2	8
W. E. KOCK	11-3-66	VICE PRESIDENT & CHIEF SCIENTIST, BENDER CORP.	63	3	7
G. H. BROWN	11-2-67	EXEC. V.P., RCA	64	3	8
W. H. PICKERING	8-22-68	DIRECTOR, JET PROPULSION LABORATORY	65	2	3
H. E. EDGERTON	11-7-68	PROF. EMER., M.I.T.	65	3	8
E. R. PIORE	11-6-69	V.P. & CH. SCIENTIST, IBM CORP.	66	3	8
P. E. HAGGERTY	8-20-69	CHAIRMAN OF BOARD, TEXAS INSTRUMENTS, INC.	67	1	6
W. CISLER	3-19-69	CHAIRMAN OF BOARD, THE DETROIT EDISON CO.	69	1	14
E. L. KANOUSE	8-17-70	CHIEF ENGINEER, L. A. DEPARTMENT OF WATER & RIVER	70	3	11
E. C. JORDAN	4-24-74	HEAD OF E.E. DEPT., UNIVERSITY OF ILLINOIS	71	2	5
E.T.B. GROSS	4-6-76	PHILIP SPORN PROFESSOR OF POWER ENGINEERING, RPI	72	1	12
EDWARD A ERDELYI	1978	PROFESSOR, E.E., UNIVERSITY OF COLORADO	76	2	15
LARRY DWON	1984	DIRECTOR, ENG'G. MANPOWER AMERICAN ELECTRIC POWER	81	3	19
HOWARD SHEPPARD	1984	VICE PRESIDENT, RUMSEY ELECTRIC CO.	81	3	19
S. REID WARREN	1984	VICE PRESIDENT FOR ENG'G. UNIVERSITY OF PENNSYLVANIA	81	3	19
DONALD CHRISTIANSEN	1985	EDITOR AND PUBLISHER, IEEE SPECTRUM	82	3	19
MARCUS DODSON	9-13-86	ENGINEER, LOS ANGELES WATER & POWER CO.	83	3	24
WILLIAM E. MURRAY	9-19-87	PRINCIPAL STAFF ENGR. DOUGLAS AIRCRAFT CO.	84	4	8
BERTHOLD SHEFFIELD	4-18-93	CONSULTANT, SENIOR ENGINEER, RETIRED, RCA	89	3	6
ROBERT W. LUCKY	4-18-93	VICE PRESIDENT, BELLCORE	89	4	5

Nominations Invited
for The Sixth
Vladimir Karapetoff
Eminent Members' Award



Dr. Vladimir Karapetoff

Nominations for the sixth Vladimir Karapetoff Eminent Members' Award are now being solicited. Nomination forms and guidelines may be obtained from Donald Christiansen, Eminent Member Committee Chairman, 434-A West Main Street, Huntington, N.Y. 11743.

In 1991, the Eta Kappa Nu Board of Directors announced the establishment of an award in honor of Vladimir Karapetoff, an Eminent Member of HKN and Fellow of IEEE, who died in 1948. The first award was given on April 27, 1992.

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

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

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

Dr. Karapetoff was born in St. Petersburg, Russia, January 8, 1876.

His father was an engineer and his mother a student at a military medical school.

Dr. Karapetoff emigrated to the United States in 1902, and became a naturalized citizen in 1909.

In 1904 he joined the engineering faculty of Cornell University as an assistant professor. In 1908 he was made a full professor and continued in that capacity until he retired from active teaching in 1939.

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

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

His colleagues remembered him as an accomplished musician on piano, violoncello, and double bass. He toured the country giving recitals

and lectures on Wagner, Liszt, and other major composers, and developed a five-string cello on which violin music could be played. He received an honorary Doctor of Music degree from New York College of Music.

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

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

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

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

Kappa Kappa Chapter Installed

The University of Texas at Dallas

by David Carstens



The New Initiates and Initiation Team

On November 17, 1995, the Kappa Kappa Chapter of Eta Kappa Nu was officially installed at the University of Texas at Dallas. The Chapter is a tribute to this rapidly growing school of Electrical Engineering in the flatlands north of that great city. The faculty advisor, Blake Cherrington, agrees: Chip manufacturers and telecommunication companies are rapidly locating in North Dallas, Richardson and Plano. Our school supplies those and other companies with well-educated engineers. Eta Kappa Nu can only add prestige to our program.

The Kappa Kappa chapter was established by a core group of students including Russ Schultz (President), David Carstens (Vice President), Mary Drummond Roby (Treasurer), Hanan Fouad (Corresponding Secretary), Jennifer Kleber (Recording Secretary), Neal Skinner, and Larry Sullivan. "We will open the membership up to all qualified students in the Spring," commented David Carstens. "However, we decided that the complications of establishing a Chapter would be minimized with a smaller number of

charter members."

Our Chapter was honored by the visit of HKN's National Executive Secretary, Dr. J. Robert Betten and Mrs. Betten. Dr. Betten led the installment ceremony and also participated in the Initiation Ritual by playing the role of Wheatstone. Dr. William Osborne, Dean of the College of Engineering and Computer Science, and faculty members, Dr. Blake Cherrington and Dr. Duncan MacFarlane also played roles in the ritual.

Afterward, Dr. Betten emphasized the opportunities open to all chapters to nominate candidates for HKN's national awards. They are: the Outstanding EE Student Award, the Outstanding EE Jr. Award, the Outstanding Chapter Award, the Outstanding Professor Award, the Outstanding Young EE Award, and the Vladimir Karapetoff Eminent Members' Award.

Each member came away from the ceremony with a sense of pride and anxiety. After all, the Kappa Kappa Chapter will have to be built and nourished by the work of its members. However, each is dedicated to the task.



Robert Betten Presents HKN Membership Certificate To Neal Skinner



New Initiates Gather After Ceremony: From Left to Right, Lawrence Sullivan, Neal Skinner, Hanan Fouad, Jennifer Kleber, Russ Schultz, and David Carstens

Kappa Lambda Chapter Installed

The University of Memphis

by Russell Deaton



The New Initiates and Initiation Team

The University of Memphis Kappa Lambda Chapter of Eta Kappa Nu was installed on December 15, 1995 in the Herff College of Engineering Auditorium on campus. The initiates and initiation team, then, had a banquet at a local restaurant.

Dr. Roger Nolte, Professor Emeritus, installed the chapter and led the initiation ritual. He was assisted by Dr. Russell Deaton, chapter advisor, Dr. Charles Bray, Dr. Michael Daley, and Dr. John Reece.

The new officers were confirmed immediately after the initiation. They are:

President:	Pamela McDaniel
Vice-President:	John Glass
Treasurer:	David Ferguson
Corresponding Secretary:	Jennifer Lasch
Recording Secretary:	Chris McKinnon
Bridge Correspondent:	Shawn Jackson
Faculty Advisor:	Dr. Russell Deaton

Dr. Roger Nolte, Dr. Charles Bray, Dr. Carl Halford, and Dr. Michael Daley are HKN members who accepted invitations to become Charter Members of the Kappa Lambda chapter. In addition, two faculty members, Dr. Steven Griffin and Dr. Russell Deaton, were initiated as Charter members.

The 15 student Charter Members are:

Ms. Kathryn Webb Braswell
Mr. William David Ferguson
Mr. John Otis Glass
Mr. Ryan James Hertter
Mr. Jerrod Shawn Jackson
Ms. Jennifer Hannah Lasch
Mr. Bernard Alfred Licari
Mr. Joshua Aaron Maksi
Ms. Pamela Ann McDaniel
Mr. Christopher P. McKinnon
Ms. Mehrak Merat
Ms. Janice Ann Neyens
Mr. Pradip Patel
Mr. Larry Thomas Watson
Mr. Jonathan David Williams



New Initiates Gather After The Initiation



The Initiation Banquet

1993-94 Chapter Awards

Purdue's Beta Chapter is Thirteenth Consecutive Year National Winner

by Alan Lefkow

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

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

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

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

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

ETA KAPPA NU BETA EPSILON CHAPTER

END OF THE YEAR REPORT 1993-1994



"Life. It depends on how one lives it. Everyone has the potential to affect our world and positively impact those around them. We all strive to find our own niche and turn a key that will open doors for others. Doing this is not always easy, and in some cases, is not always successful. The important thing, however, is to put a concentrated effort towards goals and towards the needs of others. This effort, in itself, will make a difference and inspire others to take action as well."

-The 1993-1994 Beta Epsilon Vision

OUR WORLD ...



Kappa Nu members of the Beta Epsilon Chapter at the University of Michigan.

to provide outreach activities to the surrounding Ann Arbor community. In the past, a majority of University structure. By expanding our activities, we were able to assist Projects such as the African American Academy and Summer Science made to focus on the youth of the Ann Arbor community, for they will their flames into the world after graduation. This is not to say that Beta tion to traditional forms of service, an outreach project to provide read-vice, and efforts to integrate student societies have been sparked this



bond that makes the Beta Epsilon spirit so active within the community. intramural sports, had a ski trip with other student societies, and mixed Whirlyball, a University concert at Hill Auditorium, and a spirited lons even placed in the semi-finals of the University wide IM flag the tournament can attest.

other organizations both within and outside the University community. grams we serve, the Beta Epsilon chapter is grateful to have been able to exposure we have received will prove of great use in the future for the

of Michigan, are so proud to represent. We believe that this year has been made better for each of Kappa Nu. We sincerely hope that these pages will be able to reflect some of the spirit and enthusiasm around us.

University of Michigan.

Mark Olszewski
President, Winter 1994



WELCOME TO

We truly hope that this report will provide you with a glimpse into our lives—the lives of the Eta

This last year was a year of change for the chapter, as we initiated several new programs our community service had focused primarily on activities within the neighboring communities through various forms of community service. for Girls programs for children were initiated. Concentrated efforts were carry the torch of goodwill to future generations once membership kindles Epsilons have not expanded on their University focus as well. In addi-ers for blind students at the University, a departmental mentorship ser-year.

Social activities, both formal and informal, continued to strengthen the Membership not only participated in weekly activities, but competed in service and fun with a Charity Bowl-a-Thon. Other activities included hockey game to support the Michigan Wolverine Iceers. The Beta Epsi-football playoffs this past fall, an honor that only the top four teams in

This year has also allowed us to gain exposure and recognition from From several awards of recognition to letters of thanks from the pro-continue serving others and strengthen our vibrant family of friends. The institution of forthcoming projects that we, as Beta Epsilons, are planning for the future.

I hope that this report will help you see at least a little bit of the community that we, at the University because of the friendships and activities that we have experienced through our involvement in Eta siasm that we exhibit, both for our school and the Ann Arbor community of friends and families

Thank you for the opportunity of letting us represent the Beta Epsilon chapter this past year at the

Lecann Fu
President, Fall 1993



Outreach

The Beta Epsilon chapter of HKN became more involved in community activities this year by starting an Outreach program to get grade school students excited about science and engineering.

Our first Outreach activity for Fall term was with Owen Elementary in Pontiac, MI. HKN members helped out with their air pressure, "bubbleology," and gliders sessions and even played "Heads Up, Seven Up" with the kids. I really think the kids enjoyed having us there (especially once I told them that I wasn't thirty! like they thought I was).

During Winter term, our Outreach program began doing activities with Ann Arbor's African American Academy. The African American Academy is a Saturday program that holds enrichment sessions for elementary and middle school students and tutoring for high school students. The Academy was delighted to have Eta Kappa Nu activities and electees come in bright and early on three Saturday mornings for a session called "Fun with Polymers" with their 4th and 5th graders. In this session, we explained how polymers were a part of our everyday lives and we also explained some of the high-tech uses for polymers. We then let them get their hands on a polymer by making Gak, a polymer that is like silly putty only slimmer.

Over the summer, HKN members helped facilitate a two-week program for 8th grade girls called Summer Science for Girls. The article immediately following details our activities with Summer Science.

Our involvement with the Summer Science program has provided us with a large body of good hands on activities for Outreach that have been well developed and tested through Summer Science. With this experience, we are looking forward to bringing these hands on activities to more grade school students.

Summer Science for Girls

Launching eggs, making holograms, tearing things apart, and making ice cream with liquid nitrogen are just a few of the fun things that we did with the 8th graders that were here at U of M for the two-week Summer Science for Girls program. The eighteen girls in the Engineering focus group had their mornings chock full of good hands-on science activities. The Engineering focus group, that HKN members helped out with, was facilitated by the Center for Ultrafast Optical Science; there were four other focus groups for a total of 84 girls in the entire program facilitated by the Center for the Education of Women.

We started out the first day by introducing the girls to the black box approach to science, and by having them build their own "black boxes" out of mailing tubes, string and washers. We then had a speaker, Christy Bliton from Meridian Instruments, who talked about confocal microscopy and about being an engineer. This was followed by letting them tear apart typewriters, phones, computers, stereos, toasters, etc. to see how these black boxes worked. It was really neat to answer their questions about what they found inside and to watch their eyes light up when they thought something was really cool.

The next day, students in the Materials Science department put on a great tour of their labs. After learning about polymers on the tour, the girls got to make a polymer of their own, Gak (a slimmer version of silly putty). Next stop was the Chemistry department, where Dr. Brian Coppola gave them an idea of what scientists do by having them figure out a few puzzles. He then helped them make nylon and had a nylon pulling contest.

The third day was spent learning how to solder as the girls put together electrical organ kits (don't overheat those transistors!)

Thursday was devoted to optics. The girls learned about optical properties by playing with optical kits and fish tanks. The session ended with a laser light show and an explanation of how laser light shows work.

Telecommunications was the theme for Friday. We started from the simplest example of a telecommunication system, cans and strings. This gave them a good idea of the basic building blocks in any telecommunication system no matter how complex. We then showed them a demo of a radio transmitter and jamming a radio station, and a demo of a multiplexed fiber communication system. We put the HKN radio to good use for this last demo to generate a signal that we transmitted using a small HeNe laser and a speaker. This signal was received by an optical sensor that was hooked up to another stereo on the other side.

On Saturday, we had about half of the 84 girls in the Summer Science program for a six-hour design and build session run by Prof. Diann Brei of the Mechanical Engineering department. The girls used PVC

piping and joints to build egg throwers. It was very rewarding to watch all the creative juices flowing as they worked together in teams of five. And, it's not everyday you see eggs flying on the North Campus Diag.

On Monday, the girls had a session with Prof. Stacy Bike from the Chemical Engineering department on hydrophobic and hydrophilic substances and surfactants. The girls had so much fun racing with each other to blow water drops across wass paper with straws. They also did an experiment with oil and water and glycerol, and finished up by blowing large amounts of bubbles after having bubbles and surfactants explained to them. The girls also had a robotics session on Monday where they were given a tour of ATL, played with robotic arms, and played with the video and audio interface at a distance that Prof. Lynn Conway is working on. The girls had fun using the robotic arms to manipulate wooden blocks by hitting keys on the keyboard to control, up, down, sideways, yaw, pitch, roll, open and close grip, etc. It soon became apparent to them that there is more to getting the robot to do what you want than there is to moving your own arm around. The video and audio interface at a distance was a lot of fun for the girls, partly because they went a little crazy with the "CBS chalkboard" type thing where they were able to draw on each others' faces and write things about each other on the screen. But, hopefully, they got the point that this would be a cool tool to use to explain things to people at a distance and would be really useful if you could control a robot from a distance with this kind of setup. I definitely learned that it's very hard to control kids from a distance through a video and audio interface. "laugh".

Tuesday was spent designing and building egg throwers with our 18 girls. Wednesday was a big success. The girls really enjoyed making holograms. Who would've ever thought that we'd find a good use for those Red Rose Tea figurines that have been sitting on top of the stereo in the HKN donut stand? But, they did make good subjects for the holograms. The girls were also given a tour of Dr. Leith's holography collection. Another favorite for the girls was doing strobelight photography. The Polaroids they took turned out real well. They did cartwheels, bounced balls, twirled batons, etc.

On their last day with us, the girls were given tours of the Biomechanics Lab, the Center for Ultrafast Optical Science, and the Radiation Lab, and were given a presentation by the Solar Car team. We concluded the session with a real treat, making ice cream using liquid nitrogen.

Summer Science was a tremendous success! I believe that we made a definite impression on the girls and convinced them that science can be fun and rewarding.

Outreach Recipes

Recipe for making ice cream using liquid nitrogen:

2 cups Half 'n' Half
1 cup sugar
4 tsp. vanilla
1 egg
2 cups heavy whipping cream
liquid nitrogen

Mix everything but the liquid nitrogen together first. Then add liquid nitrogen and stir until you get the right consistency.

Recipe for bubble solution:

1 cup dishwashing liquid
5 cups water
1/4 cup glycerol (or glycerin or lanolin, same thing)

Beta Epsilon HKN is Reaching out!!

Officers

Each year, the Beta Epsilon chapter elects new officers to hold semester officers. This past year's officers spent time creating personal and collective visions for the organization prior to the beginning of classes. Throughout the course of the year, these groups of officers diligently worked to transform these visions into reality for both the chapter and the community. Membership, faculty, and outside organizations all helped the chapter grow in size and breadth of experiences through their contributions.

Elections are held at the end of each semester after initiation of new membership. Through a combination of the new ideas and charisma of newly inducted officers and re-elected officers, the chapter elections created a blend of officers that were able to complement each other and their abilities. Below is a list of the Beta Epsilon officers for the 1993-1994 academic year.

Office	Fall Term, 1993	Winter Term, 1994
President	Leeann Fu	Mark Olszewski
Vice President	Brian Shu	Christopher Conley
Treasurer	Charles Pletcher II	Alex Miravite
Recording Secretary	Christopher Conley	Charles Pletcher II
Corresponding Secretary	Mark Olszewski	Derek Steele
Project Chair	Debbie Satyanathan	Alfred Lee
Activities Chair	Cigdem Yasar	Eric Glover
Bridge Correspondent	Jonathan Han	Lawrence Page
Newsletter Chair	Lawrence Page	Ford Cotton

Sports!

What does sports have to do with EE/CE? Well as Activities Chair for W' 94 term, I quickly learned that sports were a major theme of the demanded activities. At the first meeting of the term I passed around a volleyball sign-up sheet and it was over-filled; not many activities can fill the sign up sheet.

In fact throughout the term I too learned how important sports can be. I have always been the type of person who has the attitude, "Sports? I am an Engineer, I don't have time to watch or play." On occasion I would participate, but not until last term did I realize how essential sports, both playing and watching, can be to so many EE/CE's.

I made it a point to go to every IM mini-soccer and basketball game, where I always had fun, despite my lack of athletic ability. I had a chance to exercise my muscles that don't get much of a workout while in front of a computer doing homework.

One of our most popular activities is Whirlyball, a basketball like game played with plastic lacrosse sticks and bumper cars. It was fun to just concentrate on bumping into people as hard as possible, even if they don't have the ball. I think this activity is so popular because of the fast action, and the chance to be competitive, scoring points for your team.

This same theme applies to normal sports, and the academic environment, with one key difference between the two. In academics you exercise your brain, but in athletics we get a chance to give our body the muscular exercise we so dearly need, and we get the thrill of the sport. This past term (W' 94), I had the opportunity to participate in IM sports, which not only allowed me to get out of the engineering mindset, for a few extra hours a week, but also it gave me a chance to experience the thrills and chills of fast paced action.

Watching sports can also be enjoyable. At the Kent State vs Michigan hockey game, I watched the puck fly across the rink, and heard the roar of the crowd as we scored our tenth goal. The same thrill is present sitting in front of the TV as Michigan prepares to kick a field goal. All of my events from last term have helped me to understand the value of sports, especially at the University of Michigan where

football is the bread and butter of so many students

Outreach Recipes (cont.)

Recipe for Nickelodeon GAK

Ingredients:

- 20 mL of water
- 25 mL of Elmer's glue (Elmer's also comes in day-glo but food coloring works pretty well, too.)
- 1 popsicle stick
- A few cups
- 1 level tsp of talcum powder
- 5 drops of food coloring
- 5 - 8 mL (about 1 teaspoon) of saturated borax solution

Note: Borax can be bought at the grocery store in the laundry detergent section.

Twenty Mule Team Borax is a laundry enhancer. To make a saturated solution doesn't take very much Borax. An easy way to do it is to add Borax powder to water and stir well. When it still collects at the bottom after stirring well, take the solution and filter it with a coffee filter or paper towel.

Procedure:

- Add 20 mL of water and 25 mL of Elmer's glue to the cup. Mix well with popsicle stick.
- Measure 1 level teaspoon of talcum powder and place it in a 5 oz paper cup. Stir for at least 2 minutes to incorporate all the powder into the solution.
- Optional: add up to 5 drops of food coloring; stir.
- Add 5 - 8 mL (1 teaspoon) of saturated borax solution and stir well. About 2 minutes.
- Remove the Gak from the cup. Pull the solid off the stirrer. The Gak may be sticky at first but will become less sticky after handling.
- Dispose of cup and any remaining liquid in the trash.

The Gak should stretch and flow easily, but it will tear if pulled hard. The Gak will dry out and become less stretchy after handling. It can be rehydrated by mixing with a small amount of water before storage. Store the Gak in a plastic bag.

Safety: Borax (sodium borate, is moderately toxic in quantities of more than one gram per 1000g of body weight. Wash any borax from the hands with water. Wash hands after handling the slime.

Do not allow Gak to remain on clothing, upholstery, or wood surfaces. The Gak will stain or mar the surface. Clean up any spilled Gak immediately. Gak can be removed from carpets, furniture, and clothing by washing with soap and water.

Beta Epsilon Hotline

HKN is a fantastic organization. It was THE highlight of fall term for me, simply because it opened me up to a whole new range of opportunities, made me feel much more comfortable in the engineering school and most importantly, it helped me to grow as a person. I built up a lot more self-confidence and met a lot of truly excellent people whose friendships I really value. And of course, it is TONS OF FUN!!!!

-Cindy Romer

HKN is more than just selling donuts, doing service hours and eating free food at the meetings. What you want to get out of HKN depends on what you're willing to put into it. I spent a lot of time with HKN on their various projects, at the meetings and at the social events. During that time, I met several interesting people, had loads of fun, learned more about electrical and computer engineering, but most importantly, I made several friends who I am still in touch with.

-Brian Shu

For me HKN has been a chance to realize first hand the importance of mixing fun with education. It is important to do well, and interact with your peers, as well as get out once in a while.

-Eric Glover

HKN allows its members to: Gain visibility from the faculty and department that ordinary student miss. Contribute to the future of the school through committees and functions. Form lifelong friendships with peers and members of your chosen profession.

Deal with faculty as an equal, rather than a subordinate.

-Robert Gordendker

HKN is the essence of extra-curricular activity. A place for having fun, learning, helping others, and making friends! What more could you ask for?? :)

-Chris Pirich

Why I love HKN:

HKN is a social organization for professionals. The most certainly has a very pronounced influence on both the social and professional aspects of its member's life.

For a computer engineer who spends most of all his time either in class or in front of a screen...this is a great blessing. It provides the necessary relief from all the monotony and stress. Here we get together with people not because they are in our classes or because they will some how answer one of our technical questions but merely to relax. This brings us professionals back in contact with the human in us. We have a few laughs, relax a little and even benefit a lot directly by participating in the various leadership and personality building activities.

Moreover from a more professional aspect: HKN provides a very strong forum for communication within the EECS and in general the professional community. Many a times I have got stuck with some bug in a program or some concept in my research. Before it was just me (maybe with help from my supervisor) against the problem. Now it is me with 90 of the best minds around on my side. If I have a problem I just ask my friends in HKN. Some one must have come across it or something similar to it. Thus HKN helps build a very strong network of professionals around us; whom we can rely on and who can rely on us.

Thus it is obvious that I love HKN

-Raj Shaw

Why HKN is cool: Make super friends!

-Karl Diederich

HKN is the means to associate and build a comradery with fellow Electrical and Computer Engineers. In the end, it is always to freely give where help is needed inside and out of the field. :)

-Ford Cotton

HKN brightens any day, just to be there and socialize with my friends. It's true too. It always makes Monday seem better after I've been to meeting. I just forget about stressful school assignments and enjoy.

-Jean Leonard

HKN is "cool" because of the people involved, I mean can you picture yourself anywhere else but at The Mother of All Donut Stands with all your friends.

-Zachary Sachen

HKN exposes the people behind the faces that sit next to you in class.

-Grady Leno

Charity Bowl-a-Thon is Right Up Our Alley

Twenty five spirited Beta Epsilons marched into Colonial Lanes in Ann Arbor wearing unmatched shoes. The participants had varied skills, but the same high enthusiasm for what they were about to embark upon. This could only mean that the 1993-1994 Charity Bowl-a-Thon was about to begin. Ten lanes survived a barrage of strikes, spares, and splits over the course of the entire Friday from the determined membership. Beta Epsilons were especially anxious to score well in order to raise funds from pledges for the local Ronald McDonald House, located next to the University of Michigan Hospital. Students, faculty, friends, and well-wishers all helped to contribute donations and support to the chapter for this event.

The top donation receiver from pledge sheets for the second year in a row was Charles Forrest Pletcher II. Through his efforts and the generosity of his sponsors, he generated \$400 for the event. After expenses for the use of the lanes, Beta Epsilon membership were proud to present a check for \$650 to the center. In the future, we hope to continue and expand upon the relationship we have fostered with the center. Presently, we are investigating the feasibility of volunteer work through chores for the families and administration who live and work at the center.

Thanks again to everybody who helped to plan (15 hours), participate (4 hours * 25), and sponsor the event. It was truly a great success, especially for those families who need to use the shelter during difficult times in their lives.

Letter of Thanks from the Arbor House

Dear Friends,

On behalf of the families, volunteers, and Board of Directors of Arbor House, I extend to you our gratitude for your generous gift of \$650.00, for which you have received no goods or services in return. Your gift will assist us in providing our unique service for critically ill children and their families, and we appreciate your interest in and support for the House. I can assure that our volunteers will make the best possible use of every dollar to help our families.

Since the Ann Arbor Ronald McDonald House opened in 1985, we hosted more than 5000 families while their ill or injured children have received treatment in area hospitals. These families are able to stay with us regardless of their ability to pay, and often stay for extended periods of time. It is the generosity of friends such as you which enables us to keep open our "Home Away from Home", and thus to help these families stay together.

Again, we appreciate your generous support for the House.

Cordially,

Phillip J. Bowen, President

Membership Gathers for Friday TG's

Several times each semester, Beta Epsilons gather at local hang-outs for a Friday afternoon celebration of the forthcoming weekend called a TG. These events always draw a large number of members, and are often held in conjunction with other Engineering societies in order to bridge gaps between members and promote interaction between groups for continued and future projects. TG's have been held with the local chapter of Tau Beta Pi, Society of Women Engineers, and the Society of Minority Engineers.

Although schoolwork stress consumes large portions of the average Beta Epsilon's week, these few hours are a release from these commitments and an opportunity to relax and enjoy the company of others. Electing initiatives and actives have an opportunity to get to better know each other and plenty of laughs and stories are told throughout these events. Alcohol consumption is at a minimum - TG's are a natural way to be spirited for the Beta Epsilon. In the past, an occasional professor has even joined us at a TG or two.

Overall, TG's promote the camaraderie and kinship between membership that has created a multitude of lifelong friendships and memories within the chapter. A tradition for our chapter, the spirited TG will continue to bring University students closer into union and allow them to interact more effectively with others.

Beta Epsilons Giving Hands-On Science Experience Tours

Several members volunteered their time this past year at the Ann Arbor Hands-On Museum (HOM), a local science museum with interactive exhibits for people of all ages. Many of the exhibits are just as likely to fascinate a college student as a ten-year-old; needless to say, our volunteers spent some time "getting acquainted" with the various displays.

This past year, the center welcomed it's 1,000,000 visitor. In it's thirteenth year of operation, the Museum has expanded twice to meet growing demand for the resources that it provides. A third expansion is now underway, aiming to provide more opportunities for the children and families of Southeastern Michigan and beyond. Our volunteers guided tours and led short presentations for various exhibits housed at the center. A new exhibit, GO POWER, will potentially staff HKN volunteers this fall when it opens to the public. This exhibit will be a traveling exhibition on energy that has traveled around the nation this past year.

We hope to expand our commitment to the Ann Arbor Hands On Museum in the future due to their increasing need for volunteers. In this way, our chapter will be able to assist a local learning center and promote young students to explore the sciences.

A Word of Thanks from the Hands-On Museum

A special THANK YOU to those of you who responded to our urgent plea for volunteers this spring. We had many school group visits in April and a handful of volunteers donated extra time to serve as Explainer Guides. We could not have done it without you! We still have many openings for volunteer Explainer Guides through the end of the school year and in the summer, so if you are interested in racking up a few extra hours, please give us a call!

Course Evaluation Guide

Every term, membership compiles a comprehensive survey of student evaluations of their EECS courses, professors, and textbooks. The end result, the Student Course Evaluation Guide, has been an integral part of course registration for EECS students. The guide, which is supported by the EECS counseling department, serves as a tool to provide additional insight into topics of course concentration. Additionally, the guide allows students to gain a better estimate of the workload into which they wish to register.

Producing the guide is a large undertaking. Each term, over thirty Beta Epsilon members distribute and collect surveys in each of the EECS courses in the department and then tally numerical results. A committee of five people then spend between twenty to forty hours apiece laying out the guide and preparing it for publication. A compilation of student comments, concerns, and viewpoints are provided in the guide for each course. When the guide is completed, the counseling department reviews it and then gives a final approval for distribution.

The Student Course Evaluation Guide is provided free outside of the chapter office and is used almost as frequently as registration time schedules by the five hundred plus EECS undergraduate students each term. A rewarding benefit of the guide is that professors often request copies so that they can receive constructive feedback on their effectiveness in the classroom. Additionally, a countless number of professors have promoted the guide to students in their classes and increased awareness of the benefits it provides. Overall, the Beta Epsilon Student Course Evaluation Guide continues to be a valuable commodity to the entire EECS department, both students and faculty alike.

Beta Epsilon Names Professor of the Year

Every winter term, the Beta Epsilon chapter hosts a Professor of the Year Award to a deserving Electrical or Computer Engineering professor. The event has become well-recognized by both students and faculty, who attend the presentation of the award at the departmental St. George's Feast each year. Almost a thousand students were at the award presentation this year.

The Professor of the Year Award is especially unique in that the voting is done solely by students within the EECS department. This preparation requires between forty and fifty hours divided between approximately six to ten volunteers.

Although some preparation is required, the event is always a large success. This past year, over five hundred people attended each of the bi-annual events. Membership staffs the event and has six members each hour maintaining the event over it's five hour duration. The event allows both the faculty and students to talk informally about ideas and concerns and provides professors with personal feedback on their courses.

This year, Eta Kappa Nu gained support from our local IEEE chapter in promoting and sponsoring the event. Additionally, the EECS department helped to monetarily assist the chapter in funding the event, as they have done over the last several years due to their pleasure in promoting increased involvement between faculty and students outside the classroom.

Classrooms are simply unable to establish the same range of informal interaction between members of the University community that events such as these can provide. The biannual faculty mixer is invaluable because it brings everyone involved with the event into a closer union. At such a large university as Michigan, can an interactive opportunity is extremely welcome.

HKN Scholarship is Awarded to Deserving Membership

The HKN Beta Epsilon Scholarship is a monetary award given out at the end of each term to one HKN electee. All current electees may apply, since the award is given out at the banquet after the electees have been officially inducted into HKN. The amount of the award may vary from term to term depending on the funds remaining from other projects. The amount of the scholarship is not to be made public knowledge, although the professors who review the applications of prospective candidates may be told if asked.

Three faculty members are found each term to judge all the entries. Members judge the applications for character, dedication, and initiatives taken by the candidates to improve their educational experience and assist others in the community. Financial need is also taken into consideration after all other factors have been weighed.

The scholarship has been a mainstay of the organization and promotes the efforts of membership who dedicate countless hours of their time to community service and local University projects. We always have many very qualified applicants each term. This year's two winners were Marie Powell and Mark Ginestro. Thanks to all who submitted applications and judged the event.

Math Lab help continues to add up

The University of Michigan undergraduate requirements for graduation include several terms of mathematics. For a variety of reasons, a large collection of students from all concentrations and disciplines seek help every term from tutoring services to help them better grasp material in these courses. There is a strong demand for these services, yet many students cannot afford the additional costs that a tutor represent. It is for that reason that the University opened the Math Lab, a tutoring lab located at 1520 East Engineering on the Central Campus of the University. The lab was set up to assist all interested students for the lower level Math courses at the University and is a free service. The lab is open from 10-2 PM, Monday through Friday, and from 2-5 PM on Sunday.

A manager is always present at the lab and assigns students to volunteer tutors for assistance. However, they alone cannot answer the questions of all the students who use the center. Due to the wide range of material being covered at the center, a large number of volunteers are constantly desired to serve those in need of some scholastic support.

Eta Kappa Nu members seized the opportunity to contribute to peers at the University and volunteer their time at the Center. After all, many present Beta Epsilons have used the center themselves during their undergraduate careers. By giving time back to an organization that helps so many, the chapter is helping support a very needed service to the University community. Thousands of students arrive at the lab through-out a single scholastic year. Over a dozen Eta Kappa Nu members worked at the center each term, and provided over 250 hours of community service to the center. The great success of this recently instituted service will assure to help many students in the future and have the continued support of the Beta Epsilon chapter for years to come.

A word of thanks from the Math Lab ...

Eta Kappa Nu:

I wanted to drop you a line of thank you for the help given to the University of Michigan Mathematics Laboratory by your Eta Kappa Nu volunteers.

This semester was again an especially busy one for us in Math Lab. I am not sure how we could have made do without the help of your volunteer tutors.

As you may know, many of our clients in Math Lab are students who come from backgrounds different from that of the traditional middle-class college student, and whose preparation for college may not be quite as thorough as that of the traditional student. Part of our role in Math Lab is to be able to help these students bridge themselves into the college experience, which takes dedication, sensitivity, and understanding on the part of the tutors. Your volunteers did an admirable job of this, and I was proud to have them as part of our Math Lab family.

Robert E. Megison
Director
University of Michigan Mathematics Laboratory

Meetings are the Place to Be

Meetings for the Beta Epsilon chapter are a time for membership to unwind from their schedules and interact with one another. Monday evening meetings are not only a chance to utilize each others talents' within the group, but to plan both new and continuing endeavors to assist the surrounding community.

This year, meetings have been used for debates on outreach issues and for open forums to discuss future projects that the chapter has unique skills in which to contribute to another organization or project. Every term, new volunteer projects and charity fund-raisers are initiated and organized by members.

Faculty, corporate speakers, and chapter members keep membership informed of new technology, programs, and interests for the chapter. This past year, Beta Epsilon hosted speakers on Career Planning, modern research in the Ultrafast Optics Lab at the University, a forthcoming leadership seminar called LeaderShape, and on changes in the departmental curriculum. These are only a few of the speakers that the chapter host in any given semester. Guest speakers share personal experiences with the group during refreshments after the meeting, when members can break into smaller, informal groups to discuss ideas, stories, and experiences.

Meetings are the integral part of what makes the Beta Epsilon chapter a proactive and enthusiastic family. Members are not simply fellow engineers, but close friends, supporters, goal setters, and achievers who have formed a close-knit community with a common vision to enact positive changes to enhance the lives of others.

Student Faculty Mixer is a Success

Each term, the Beta Epsilon chapter organizes and holds a Student-Faculty Mixer in the EECS atrium. This event requires careful planning and preparation. Food and beverages must be ordered, flowers and place settings must be purchased, and fliers and invitations need to be hand delivered to all staff and faculty in the department. This preparation requires between forty and fifty hours divided between approximately six to ten volunteers.

Although some preparation is required, the event is always a large success. This past year, over five hundred people attended each of the bi-annual events. Membership staffs the event and has six members each hour maintaining the event over it's five hour duration. The event allows both the faculty and students to talk informally about ideas and concerns and provides professors with personal feedback on their courses.

This year, Eta Kappa Nu gained support from our local IEEE chapter in promoting and sponsoring the event. Additionally, the EECS department helped to monetarily assist the chapter in funding the event, as they have done over the last several years due to their pleasure in promoting increased involvement between faculty and students outside the classroom.

Classrooms are simply unable to establish the same range of informal interaction between members of the University community that events such as these can provide. The biannual faculty mixer is invaluable because it brings everyone involved with the event into a closer union. At such a large university as Michigan, can an interactive opportunity is extremely welcome.

Beta Epsilons Initiate Mentorship Service

The College of Engineering at the University of Michigan is a diverse collection of individuals and opportunities. This attribute is a key strength of the collegiate environment here, but poses problems as well for incoming undergraduates. Specifically, many undergraduates entering engineering are overwhelmed and intimidated by the resources and size of the College. When this occurs, such undergraduates often remain unexposed to the many programs and opportunities that are available to them. Understandably, they are then unable to reap many of the benefits that the College has to offer.

Eta Kappa Nu is presently instituting a mentorship program for such incoming undergraduates in the EECS department to help make them aware of opportunities and by granting them access to some additional opinions and/or knowledge. The program is designed to help undergraduates become adjusted to the rigors of the department and answer specific questions of students. A lot of satisfaction can be gained by sharing experiences with others.

My personal experience as an undergraduate within the EECS department has been a rewarding one. Much of what I have gained while attending the college has come from interaction with my peers. Not only have these discussions broadened my technical and resource knowledge, but have assisted me in enhancing my interpersonal skills. Overall, these interactions have made the EECS department a more pleasant and dynamic place for me to work towards an undergraduate degree. The exchange of ideas available through a mentor program will promote such student interaction, better prepare incoming EECS undergraduates for approaching new experiences, and allow for the EECS department to better prepare engineers as more well-rounded individuals for the business world. The College needs to increase student exposure to the many facets of the College of Engineering and ensure that incoming EECS undergraduates are exposed to the programs and resources available. The implementation of a mentor program for incoming EECS undergraduates allows for incoming students to interact with current EECS undergraduates and provide a conduit for informal discussion of the programs, societies, and student experiences involving the department.

A mentor program will enhance the EECS undergraduate experience at the University because it will allow incoming students to learn of opportunities available to them earlier into their degree requirements. Additionally, incoming EECS undergraduates will have the opportunity to gain use of knowledge of their peers that could assist in adapting and developing to the surrounding environment. As well, a mentor program can open communication channels for the EECS department to determine the effectiveness of various programs and on how well students are informed of resource availability. Too often, undergraduates are exposed to ideas late into their undergraduate experience that could have been beneficial earlier in their studies. Through the Beta Epsilon mentor program, such knowledge can be passed onto other University of Michigan undergraduates. By developing informal lines of communication through a mentor program, the department can add a critical "feedback" loop of ideas and information to enhance the undergraduate experience of EECS students.

Book Exchange Makes Cents for Students

A common question among University students is "Why are textbooks so exorbitantly expensive?". The Beta Epsilon chapter, committed for the past several years to alleviate the pain of purchasing these necessary materials, established a departmental book exchange for those interested in buying and selling used texts. Each semester, the chapter constructs a chart board and posts it outside of the chapter office. The board normally takes less than five or ten hours to construct, but saves EECS students countless hours in legwork tracking down these texts themselves. Persons wishing to sell books need only to list their names, numbers, books, or prices they are requesting.

The chart is not only restricting to selling. Those who wish to buy used texts can employ the board as well and fill out their prospective text "wish list". These lists ensure that both vendors and buyers have the power to communicate and has provided an additional alternative to rising bookstore prices. Although a formal list of successful sales are not tracked, the countless scratched out items and students complementing the service have made Beta Epsilons proud to provide it each semester for their peers.

Donut Stand

Time to sell the donuts ...

This year, the Beta Epsilon has continued its entrepreneurial tradition of making the mornings a bit easier for engineering students, faculty, and staff alike by selling donuts, coffee, and other refreshments daily. Lines this past year were especially long between classes due to our expanded product mix. In particular, Snapple Iced Tea and granola bars were added to the office store.

In addition to serving the engineering community, the donut stand continues to provide the chapter with the majority of its income, which is used to fund service projects and various social activities. The stand also gives electees an opportunity to develop interpersonal skills and get to better know members of their initiate class as they work in tandem with active membership.

The stand is open from 8:00 a.m. to 12:40 p.m. from Monday to Friday, staffed by at least two friendly HKN members to provide customers with fast and cheerful service. Items on the menu include dozens of varieties of donuts, muffins, and assortment of candies, as well as coffee, tea, hot chocolate, and fruit drinks. Active members wishing to attend the biannual banquet bonanza after initiation can earn free tickets for themselves by running the stand for several shifts over the course of the term.

This past year saw the addition of "Donut/Juice of the week combo packages", introducing clientele and staff to new varieties. Encouraged to be more environmentally sound, the Beta Epsilon chapter has begun offering reusable coffee mugs as an alternative to our regular foam cups. Additionally, recycle bins for glass containers and customer newspapers are located directly outside of the office. In the future, we hope to continue to promote such environmental sensitivity and expand on our current efforts.

Name That Donut Contest

One of the most popular and satisfying HKN endeavors is selling donuts to the hungry hordes that wander through the EECS atrium each morning. Unfortunately, this is how a transaction usually takes place:

"Hi! Can I help you? (bright-eyed HKN electee)"

"Uh, yeah. Gimme one of those ones over there." (Tired, incredibly stressed-out senior EE major)

"This one?"

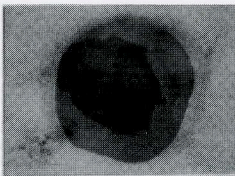
"No, the nutty one."

"You mean this one?"

"Actually, the other nutty one."

So, in order to diminish in the process (mostly to "Name That Donut Contest") in was simple: come up with a for a favorite donut. The best test committee and the winner of that donut.

In a fit of creative as "inspired", donut stand panamers. For example, Bryan glazed custard donut (shown Flour Substrate with Chocolate think he's been spending too suit, what do you think? Another donut — a custard log with nuts on top — was named "Mossy Log" by Mike Schaldenbrand. Pictures of the donuts and the winning names were posted near the donut stand for all to see.



ish the confusion and have a little have fun), HKN sponsored a February and March. The object really nifty and descriptive name donut name is chosen by a con is awarded a coupon for a free pair

frenzy that can only be described trons submitted lots of interesting Traynor dubbed the chocolate below) "Temperature-Enhanced Vapor Deposition (CVD)". We much time in a clean-room bunny

I have been associated with an outstanding faculty advisor for the past two years. My organization has received constant support and guidance from him in instituting new programs to provide outreach and community service to the Ann Arbor and Metro Detroit area. He consistently helps membership develop new programs to provide community outreach and assists students within the University community. He promotes graduate studies effectively and is a strong advocate of supporting undergraduate research with staff as a critical part of student development. His charismatic nature and influential skills as a public speaker help our organization to attract a high number of enthusiastic, intelligent, and creative individuals to membership each term. His efforts as our faculty advisor for the past five years have shown tremendous dedication and initiative to the organization. His efforts have helped mere ideas to progress through developmental channels and become reality for the Ann Arbor community.

Over the last year, the organization has developed an increased focus for community outreach due to our advisor's efforts. He works for the University on an Outreach community diligently and helps us institute many efforts to provide community service. Under his direction, the students have begun new efforts to assist the community. The first of these programs is a program for grade school students. Assisted through his guidance, the organization currently runs a weekly series of projects in the sciences for 4th and 5th grade students on Saturday mornings at Scarlett Middle School for the African American Academy. The project being run this term consists of a series of experiments, hands-on demonstrations, and discussions of the sciences. With the help of our faculty advisor, the program has spoken with staff and received support from the University community for these efforts. This is readily indicated by members from the University staff running a similar program and attending the school with the group.

The group remains vibrant because it is constantly changing and progressing into a more active part of the University community. New ideas are instituted every month to provide new services, and traditional activities that have been performed remain a mainstay of the organization. One critical reason this is possible is that our faculty advisor is always available and approachable in his office for questions. One of the more charismatic people I have met while at the University, he helps students become excited in their goal and dreams through support. However, he is also very aware of the need for student's to take responsibility for their actions, and stresses developing leadership roles within the group through Committees. He takes his creativity with him when he leaves the classroom and works with many members informally to brainstorm new ideas and develop existing ones.

The faculty advisor's focus on personal development beyond required coursework is evident. He is a very diverse man with unique perspectives. His role in the organization adds excitement to the group, and his charismatic nature livens the banquet that the organization holds at the end of each term. He speaks at meetings to advocate action through example; his personal actions within the community and with my organization show a deep degree of dedication and commitment. This attitude is visibly passed onto membership. Although candidates for the organization are required to serve 30 hours of community service before they receive membership into the society, many serve more than this on projects that the organization promotes. Additionally, active membership service hours, although voluntarily based, continues to provide a multitude of hours to the community, as indicated by the broad range of events and activities that are organized and run each term. Furthermore, his inspiration and creative nature has sparked student initiative in brainstorming new projects for the organization, including one where membership reads books onto audio tape for blind U of M students.

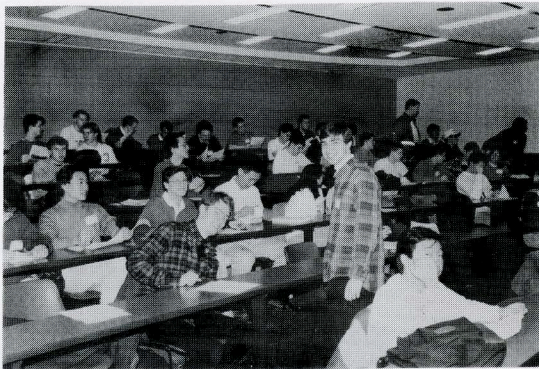
Much of our membership continue to graduate school due to our advisor. Although he is still quite a young man, he has been award several distinguished awards, including IEEE Fellow and multiple Professor of the Year awards. His love for science is evident and he serves as a role model for many students within our membership. I admire his love for what he does more than anything else, and believe that finding such a love is vital to making a difference to those around you. His efforts have enriched all of our membership and a multitude of students he has taught through the years. The thing that I admire most about our advisor is that he pushes himself and others to try new things and use creativity as a tool for success. Too often, undergraduates become intimidated and just follow around with the crowd. However, there is an incredible amount of creativity and untapped ideas in each of us. His role as faculty advisor serves as a faucet for each of us to funnel these ideas through appropriate action to take action, both for the organization and within our personal lives. In conclusion, this man has influenced our organization tremendously with his wisdom, thoughtfulness, and insightfulness. His focus on the student as an individual has had an impact on our membership in the way we interact with others. I applaud his efforts as both a role model to us and as a constant inspiration of the potential which we all have. His guidance has enriched my University involvement and guided much of our membership throughout their undergraduate careers. Therefore, I am honored to be able to nominate this man for Advisor of the Year award and believe he is definitely worthy of being deemed recognition for his tremendous efforts for both my organization and the Ann Arbor community.

ETA KAPPA NU at the University of Michigan

I have been associated with an outstanding organization for the past two years now. The organization consistently develops new programs to provide community outreach and assist students within the University community. Additionally, this group attracts a high number of enthusiastic, intelligent, and creative individuals to membership each term. These members bring dedication and initiative to the organization that allows mere ideas to progress through developmental channels and become reality for the Ann Arbor community.

This organization has traditionally performed a multitude of services in the Ann Arbor community. These events include volunteer efforts at the U of M hospital, charity work for the Ann Arbor Hands on Museum, and the local group Habitat for Humanity. Additionally, this organization consistently tutors undergraduates at the UGLI and at the MATH LAB located in East Engineering. These projects are only a few consistent projects that the group performs.

Over the last year, the organization has also developed an even stronger focus for community Outreach.



Under the direction of the faculty advisor, the students have begun new efforts to assist the community. The first of these programs is a program for grade school students. The organization currently runs a weekly series of projects in the sciences for 4th and 5th grade students on Saturday mornings at Scarlett Middle School for the Afro American Academy. The project being run this term consists of a series of experiments, hands-on demonstrations, and discussions of the sciences. Specifically, the unit for this term is on polymers, for the teachers at the Academy felt that their background in the sciences was the weakest. Staff at the Academy felt that the tremendous enthusiasm of the chapter would spread excitement to the students in the classroom. Both the active and candidate membership of the organization have worked diligently to prepare lesson plans, experiments, materials, and time to develop a program that promotes student interaction with the discussion. This effort, in itself, has required over one hundred hours of service. Meetings are held to dry-run lessons to ensure

Business

Planning the Yearly Beta Epsilon Budget

It is a difficult task to balance the Beta Epsilon budget each week, let alone compile a balanced yearly budget and project a budget for the following year. This is a daily task, however, of the chapter officers, who must ensure that new and ongoing projects will have funds to continue operations. This past year, the Beta Epsilon chapter has had one of the largest budgets of all of the university's student societies. Keeping tab of each credit and expenditure can easily become an accounting nightmare. However, the diligent efforts of the chapter officer provides constant updates and projections as to the status of the organization.

Here is a breakdown of the credits and expenditures for the past year:

Credits	Fall '93	Winter '94
Donut Stand Revenue	14,645.87	15,402.50
Resume Book	640	40
T-Shirt Revenue	18	259.5
TG's	63	73.5
Grants and gifts	957.21	2,000.00
Electee Dues	1,790.00	2,522.00
Banquet	178	0
Miscellaneous	275	108
Rent-a-Nu	20	0
Bowling for Donations	0	683.49
TOTAL CREDITS	18,585.08	21,088.99
Expenditures	Fall '93	Winter '94
Donuts	5,117.37	4,641.64
Sales Tax	0	429.58
Candy and Juice	4,435.06	5,181.49
Meeting Food	1,095.31	1,173.69
Officer Meeting Food	81.88	226.91
Banquet	2,618.26	3,168.04
National Dues	750	900
Scholarship	250	250
Plaques	105.32	64
Pins	225.5	412.5
Michigan Daily Ad	139.5	139.5
Copies	158.36	144.48
EECS Speaks	165.88	12.73
Course Evaluation Guide	27.21	0
Resume printing and mail	408.32	0
Pictures/Slide Show	0	21.37
End-of-Year Report	6.28	0
T-Shirt Design Contest	0	30
T-Shirts	0	425.89
IM Sports	57	171
Other Recreation	351.09	232.5
Student/Faculty Mixer	1,005.59	1,488.22
Monte Carlo Night	110.17	88.13
Springfest/Social Events	290.76	655
Misc. Events	195	72
Charity Donations	0	650
Bank Fees	28.21	34.47
Phone Bills	195.78	0
TOTAL EXPENSE	17,815.84	20,527.42

Beta Epsilons Receive Outstanding Chapter Award in Ceremony

The Beta Epsilon chapter was extremely honored this past year to be awarded an Outstanding Chapter Award from Nationals. Membership gathered at a special ceremony during one of our Monday meetings to receive the plaque from University administration.

The EECS departmental chairperson, Prof. George Haddad, made the official presentation with our faculty advisor, Prof. Herbert Winful. Both are Eta Kappa Nu members and expressed their sincere appreciation for all that we have accomplished together, as a family. Through the cooperation of faculty and administration in supporting chapter endeavors and their recognition of chapter accomplishments, the University of Michigan fosters a caring relationship for the Beta Epsilon family.



University Honors Beta Epsilon Chapter with Two Prestigious Awards

The University of Michigan supports all student society organizations through the Students Organization Development Center (SODC). They provide counseling information and serve as a liaison between administration and the student community. Each year, the SODC awards four plaques to the most Outstanding Student Organizations at the University of Michigan. These awards are not solely restricted to engineering societies; various chapters ranging from the Young Republicans to Project Serve submitted applications. The application consisted of a single two-page essay describing efforts that your chapter has provided to enhance the University community and surrounding environment. This year, the Beta Epsilon chapter was proud to be recognized as one of the honored organizations.

Additionally, the SODC presents a single Faculty Advisor of the Year Award to an advisor for a University society who brings exceptional service to their particular chapter. A one page essay was the application for this award. Beta Epsilons were thrilled to learn that their advisor, Herbert Winful, was recognized with this distinction for his tireless efforts to assist us. The remainder of this report consists of the two essays submitted to the SODC contest - the faculty advisor essay and then the chapter essay. Thank you again for entering our world and seeing what we are about.

ETA KAPPA NU at the University of Michigan (cont'd.)

that the program will be meaningful to the students attending. The organization has also received support from the University community for these efforts, as indicated by members from the University staff running a similar program and attending the school with the group.

Another program that has been initiated is a program where candidate members provide service to their fellow student. Right now, there is a portion of our university community that is in dire need of assistance to allow them to make the most of their academic tenure at the University. Through the University services for students with disabilities, our membership presently provides readers to blind students who cannot read their textbooks. Presently, many texts are either too expensive or too difficult to convert into Braille in a timely fashion for these individuals. To assist these students, the organization provides students who read the student's assigned readings onto audio tape, from which the student can later replay and master the covered material. This organization strongly believes in the importance of education and utilizing skills to help others. By reading texts for other students, the organization continues to provide valuable assistance in learning to undergraduates at the University.

Each scholastic year, the organization also holds a bowl-a-thon to raise funds for a local charity. Last year, over \$1200 in pledges was raised for the Ronald McDonald House in Ann Arbor through the effort of 30 to 40 members who attended the event. The organization also raises funds through the running of a donut stand. Funds raised pay for a multitude of events, including IM sports teams, a Student-Faculty Mixer for the community, course evaluation guides written by student membership to assist others in deciding on course to take, and a scholarship to assist a member with specific financial needs who has shown outstanding group service.

The organization attracts over 30 new members to the organization each term. Active membership is an integral part of the organization family structure upon which the organization is founded. Student members reach out to each other and the University community in their daily schedules at classes to brighten student's mornings. The group provides a MENTOR program for new U of M students, where they can either email questions to the group or receive a one-on-one contact to help them with specific questions about courses, interviewing, or intricacies of the University environment gained through experience. This program has direct support from the University counseling offices, who have referred students to us for assistance.

The student membership provides other interactions as well, including a program where membership provides services for faculty in order to gain one-on-one contact informal interactions with them. The organization publishes a monthly newsletter with both technical and social articles written by membership and provided on campus.

The group remains vibrant because it is constantly changing and progressing into a more active part of the University community. New ideas are instituted every month to provide new services, and traditional activities that have been performed remain a mainstay of the organization. Candidates for the organization serve 30 hours of community service before they receive membership into the society. Active membership, although voluntarily based, continues to provide a multitude of hours to the community, as indicated by the broad range of events and activities that are organized and run each term.

Meetings for the organization are also helpful, for guest speakers from both the faculty, industry, and research community give speeches and informal lectures on innovative topics both in technical fields and in areas in How to interview Effectively. The organization publishes a resume book for membership in which they can place their resume for free in order to assist them in finding both summer and permanent jobs. Finally, this group interacts with a multitude of other on-campus organizations and helps support their efforts. Both volunteer hours, publicity, and social events between organization have been provided in the past to promote student involvement at the University besides required coursework.

In conclusion, the group I have discussed has enriched my University involvement and guided me throughout my undergraduate career. I have been blessed in that I am much more certain of my interpersonal, leadership, and organizational skills. I am honored to be a member of this group and believe it is definitely worthy of being deemed recognition for the tremendous efforts of its' entire membership.

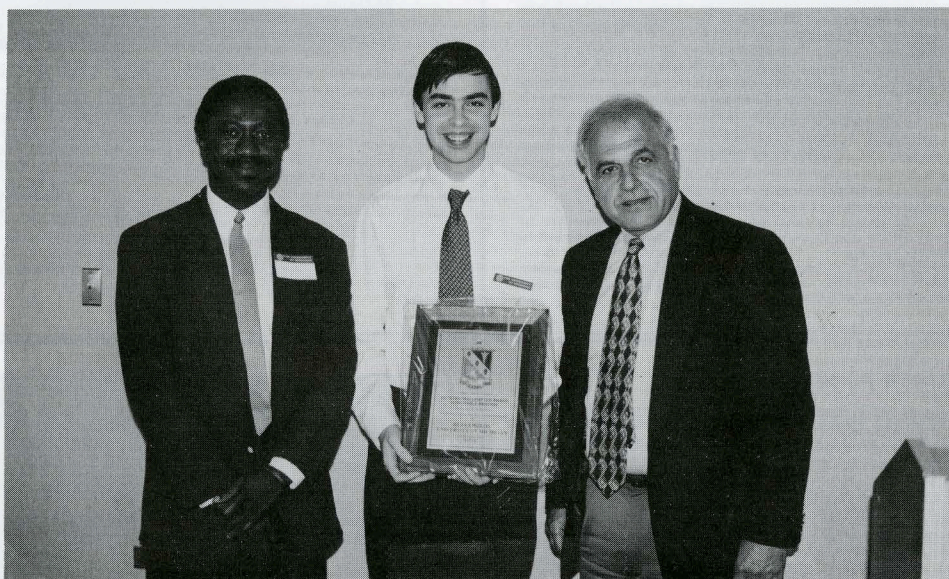


Beta Epsilon Spirit



1993-1994 Designer Edition





Chapter Awards, Honorable Mention Winner, Beta Epsilon at the University of Michigan, received their Winning Chapter Plaque at their Annual Student Awards Luncheon. Pictured (left to right) are: Professor Herbert Winful, HKN Faculty Advisor; Larry Page, Chapter President; and Professor George Haddad, EE Department Chair

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