Chapter Activities Report

2011 – 2012

Department of Electrical and Computer Engineering

Missouri University of Science and Technology
1870 Miner Circle
Rolla, MO 65409-0040
Introduction
to the 2011-2012 Annual Chapter Report

at
Missouri University
of Science and Technology
THOUGHTS FROM THE BRIDGE CORRESPONDENT

This Annual Chapter Report is a thorough record of every event and activity of the Gamma Theta chapter of Eta Kappa Nu over the past year. It serves as a lasting record for all future members to look back upon, whether it be to stir up new ideas or to help future members understand the past. It is critical that what we do as a chapter is documented. In viewing this report, we can better understand our strengths and weaknesses, and we learn from our mistakes as well as from our successes. The Gamma Theta chapter is always trying to improve itself, and this Annual Chapter Report is an attempt to communicate our efforts over the past year.

This year was another excellent year for Gamma Theta. We continue to be a bright light within the department by inspiring excellence and helping create opportunities for social interactions. The Friday morning coffee shop continued to be a popular destination. A new generation of members has been inducted, many of whom are already officers, and they give me great hopes for the future of the chapter. Thanks to the dedication and leadership of our officers, members, and faculty advisors, the Gamma Theta chapter continues to grow as an organization of which we are all proud to be a part.

Submitted on behalf of the members of the Gamma Theta chapter of 2011-2012.

Daniel M. Pham
Bridge Correspondent, Fall 2012
MESSAGE FROM THE DEPARTMENT CHAIRMAN

The HKN electrical and computer engineering honor society at the Missouri University of Science and Technology continued their excellent performance last year. The various activities demonstrate the leadership and creativity of these students. Their performance during 2011-2012 was the culmination of great effort and dedication by the members and the advisors.

The HKN coffee shops are an ever-popular part of Friday mornings for students and faculty alike. The Gamma Theta chapter also hosted the seventh annual Eta Kappa Nu Company Banquet, allowing recruiters a chance to interact with some of our brightest students in a social setting. Adtran, Dynetics, and Garmin were sponsors in the spring.

The chapter is very proud that one of its members, Kathryn Rodhouse was selected as the 2011 National Winner of the Alton B. Zerby and Carl T. Koerner Outstanding Electrical and Computer Engineering Student Award.

HKN is a valuable asset in the department. The students play a role in student recruitment, service to underclassmen, social coordination, and outreach in the community. I call on HKN frequently to help with prospective student visits. They always respond with a first-class effort. In my 26 years at UMR, the HKN section has always been active and well-organized.

Kelvin T. Erickson
Chairman, MST Electrical and Computer Engineering Department
THOUGHTS FROM THE FACULTY ADVISORS

We are pleased to submit this annual report for the Gamma Theta Chapter of Eta Kappa Nu of Missouri University of Science and Technology (Missouri S&T). The chapter maintains a high level of activities that exemplifies “the balanced life” and service to others and operates on a paradigm of recognition, interaction, communication, and service. This is clearly demonstrated by our students who continually seek to identify needs and opportunities in the campus, department, and community. As a result, the Gamma Theta Chapter is one of the most active and respected organizations at Missouri University of Science and Technology. This report highlights the breadth and quality of this chapter’s involvement in and contributions to campus and community life.

Our chapter has accomplished much during the prior year. In addition to winning an HKN Outstanding Chapter Activities Award and having one of our students be selected as the 2011 National Winner of the Alton B. Zerby and Carl T. Koerner Outstanding Electrical and Computer Engineering Student Award, the chapter engaged in several social events, including pledge smokers and a pool tournament. It also hosted the seventh annual Company Banquet, which provided students with an opportunity to interact with recruiters in a social setting. The chapter continued to play an active role in recruitment by offering tours of the ECE department to prospective students and assisted in acquiring parts for various student projects. These are just a few of the chapter’s outstanding service and social functions described in this document.

We have been privileged to interact with and encourage the talented student leaders of the Gamma Theta Chapter. The chapter is a key mechanism for developing leadership and communication skills in our top students, who continually bring distinction and recognition to Eta Kappa Nu and Missouri S&T.

Steve E. Watkins  
Advisor

Sahra Sedigh  
Advisor

Theresa Swift  
Advisor
HIGHLIGHTS

This has been a great year to be an Eta Kappa Nu member at Missouri University of Science and Technology (Missouri S&T, formerly University of Missouri-Rolla). The dedication and enthusiasm of the members are making our new ideas and projects the buzz of ECE and the campus. Some of our activities are listed below.

- Hosted the seventh annual HKN Company Dinner, an event to promote relations between HKN members and companies who recruit at Missouri S&T.
- Organized a pre-college event.
- Continued to be involved in promoting the department to prospective students.
- Continued and extended the Friday Morning Coffee Shoppe, which brings together students and faculty for 25¢ donuts and 50¢ coffee.
- Inducted eighteen undergraduate members, five graduate members, and three eminent members.

HISTORY

Electrical engineering students at the Missouri University of Science and Technology (formerly the Missouri School of Mines and Metallurgy) established the Theta Mu honor society on December 5, 1950. The founding president was Homer E. Coonce and the founding advisors were Roger E. Nolte and Gabriel G. Skitek. The intent of the organization was to gain formal recognition from the national electrical engineering society, Eta Kappa Nu. A charter was granted on April 26, 1952 establishing the Gamma Theta chapter. Eta Kappa Nu and the department have since expanded to include computer engineering students. The chapter has a distinguished history including fourteen-time recognition as the national winner of the chapter activities award and home to winners of the outstanding junior and senior national awards. It serves over five hundred electrical and computer engineering students at Missouri’s Technological University.
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“This is what we strive for as members of Eta Kappa Nu: To lead a balanced life, a life in which scholarship, character, and attitude are jointly developed.”

– Initiation Ritual for Eta Kappa Nu Members –
The Gamma Theta Chapter of Eta Kappa Nu received its charter on April 26, 1952. The head table for the installation meeting is shown. From left to right are Dr. Curtis L. Wilson (head of the school), Robert L. Owens (Gamma Theta Secretary), Alton B. Zerby (National HKN Secretary), Mrs. I. H. Lovett, Dr. Mervin J. Kelly (President of Bell Telephone Laboratories and Rolla Alumnus from 1914), Homer E. Coonce (Gamma Theta President), Mrs. R. L. Owens, Dr. Ovid W. Eshbach (Dean of Northwestern University and National HKN President), William P. Kimker (Gamma Theta Treasurer), and Dr. I. H. Lovett (EE Department Chair).
GAMMA THETA CHAPTER PRESIDENTS*

1951-1952 Homer E. Coonce
1952 Claude J. Osbourne
1953 Donald G. Bardon
1953 Charles Poc, Jr.
1954 Jerry D. Swearingen
1954 Donald Gessley
1955 Richard L. Kaiser
1955 James Longshore
1956 Jack Stewart?
1956 Liston E. Neely
1957 Paul E. Zahn
1957 Orville L. Schaefer
1958 Norval D. Wallace
1958 Leland L. Lory
1959 James H. Hahn
1959 Douglas M. Froemdsorf
1960 William McGovern
1960 Lloyd Brunkhorst
1961 Russell M. Ousley
1961 William H. Slocom
1962 Memphord Smith
1962 George Alexander
1963 Kent W. Swearingen
1963 John Hollaway
1964 Henry E. Fischer
1964 Donald E. Spink
1965 James D. Spencer
1965 James E. Stangel
1966 Larry Robinson
1966 James R. Armstrong
1967 (Unknown)
1967 Dennis Greer
1968 James L. Wiseman
1968 Robert J. Livengood
1969 Jerry Brown
1969 George M. Vernon
1970 Thomas D. Steury
1970 Constantine R. Jenkins
1971 Jerry T. Sewell
1971 Donald A. Bene
1972 George W. Havenstein
1972 Ronald D. Falder
1973 Leonard F. Laskowski III
1973 Jerry Sanders
1974 Michael E. Cerulo
1974 Paul L. Clites
1975 Alan Erickson
1975 Dennis W. Leitnerman
1976 Paul Abney
1976 Alan V. Parks
1977 Dennis C. Appel
1977 Robert C. Welsh
1978 Stephen L. Allen
1978 Craig L. Agne
1979 Robert W. Arnold
1979 Steve Diebold
1980 (unknown)
1980 Mack Nealon
1981 J. Keith Townsend
1981 Jim Haberstock
1982 Andrew W. Bonnot
1982 C. Frederick Kummer III
1983 David Gaskill
1983 William C. Schulze
1984 Brent Jenkins
1984 Clay Melugin
1985 Rick Maness
1985 Jeff Koch
1986 David M. Walling
1986 Elizabeth C. Rollheiser
1987 Alan Simpson
1987 Chris Cooper
1988 Nancy Wojciechowski
1988 Shelly Law
1989 Lynn C. Berning
1989 Becky L. Dancy
1990 Kevin Kohm
1990 Jonathan Joplin
1991 Ryan Elbert
1991 William Alexander
1992 Michael Pruitt
1992 Todd Sublette
1993 Warren Waas
1993 Steve Poulson
1994 Jeff Watrous
1994 Chris Matt
1995 Matt Spathe
1995 Sean J. Bentley
1996 Carrie May
1996 Brian Willingham
1997 Patrick Chapman
1997 Ted Zeef
1998 Chris Olsen
1998 Chris Olsen
1999 S. Paul Hatfield II
1999 S. Paul Hatfield II
2000 Kevin Kroege
2000 Sarah Taylor
2001 John Fitez
2001 James W. Fonda
2002 James W. Fonda
2002 Jesse Lai
2003 William F. Krekel
2003 Paul T. Maltene
2004 Jeremy M. Allyn
2004 Richard A. Milburn
2005 M. Ryan Bales
2005 Frances L. Pratt
2006 Benjamin R. Moss
2007 Jeffrey J. Labundy
2007 Amy K. Peery
2008 Tyler G. Sheley
2008 Robert D. Zuroweste
2009 Tori J. Ratiliff
2009 Zachary R. Marsden
2010 Gina S. Hentschke
2010 Kevin E. Robison
2011 William Marchetto
2011 Kenneth N. Bassler III
2012 Vincent T. Allen
2012 Vincent T. Allen

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GAMMA THETA CHAPTER ADVISORS*

Petition Roger E. Nolte
Petition Gabriel G. Skitek
1952-1953 Gabriel G. Skitek
1953-1954 Roger E. Nolte
1954-1956 Gabriel G. Skitek
1956-1957 David J. Freeman
1957-1961 George McPherson
1961-1962 James I. Lantham
1962-1964 Leland L. Long
1964-1966 George McPherson
1966-1968 Edward C. Bertnolli
1968-1969 Norman E. Levine
1969-1973 James E. Adair
1970-1971 John Giem
1971-1973 Charles A. Gross
1972-1975 Thomas Van Doren
1973-1974 Daniel K. Goodman
1974-1976 Jack J. Bourquin
1975-1978 David R. Cunningham
1976-1978 Gabriel G. Skitek
1978-1980 (Unknown)
1981-1987 Paul D. Stigall
1981-1984 Jerome Knopp
1984-1992 Randy H. Moss
1987-1991 Richard Dubroff
1992-Present Steve E. Watkins
1992-2001 Mariesa Crow
2001-2004 Ann Miller
2002-2010 Daryl Beetner
2005-Present Sahra Sedigh-Ali
2010-Present Theresa M. Swift

GAMMA THETA: OUTSTANDING CHAPTER ACTIVITIES AWARD*

1953-54 National Winner
1954-55 National Winner
1955-56 Honorable Mention
1956-57 Honorable Mention
1957-58 National Winner
1558-59 National Winner
1959-60 National Winner
1960-61 Honorable Mention
1961-62 National Winner
1962-63 – No nat’l award;
1963-64 Honorable Mention§
1964-65 Honorable Mention§
1965-66 Honorable Mention§
1966-67 Honorable Mention§
1967-68 Honorable Mention§
1968-69 Honorable Mention§
1970-71 Honorable Mention§
1971-72 Honorable Mention§
1972-73 Honorable Mention
1976-77 National Winner
1980-81 National Winner
1981-82 Honorable Mention
1982-83 Certificate of Merit
1984-85 Certificate of Merit
1985-86 Honorable Mention
1999-2000 Honorable Mention
2001-02 Honorable Mention
2002-03 Honorable Mention
2003-04 Honorable Mention
2004-05 Co-Winner (1 of 9)
2005-06 Co-Winner (1 of 15)
2006-07 Co-Winner (1 of 20)
2007-08 Co-Winner (1 of 18)
2008-09 Co-Winner (1 of 22)
2009-10 Co-Winner (1 of 23)
2010-11 Co-Winner (1 of 24)
§West Central Region Winner

NATIONAL HKN LEADERSHIP*

J. Robert Betten (ECE Faculty)
1981-82 Vice-President
1982-83 President
1988-99 Executive Secretary
Robert I. Egbert (Gamma Theta ’71)
1995-96 President
1996-97 President
John D. Wolf (Gamma Theta ’66)
1996-97 Vice-President
1997-98 President

* Lists compiled by Steve E. Watkins

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ORIGINAL CHARTER CERTIFICATE

Starting our 61st year
Recognition of Excellence

at
Missouri University of Science and Technology
OUTSTANDING CHAPTER AWARD

The Missouri S&T Gamma Theta chapter of Eta Kappa Nu was awarded its seventh consecutive Outstanding Chapter Award for the 2010-2011 academic year. Gamma Theta and twenty-three other chapters were selected from over 200 other chapters who submitted an Annual Chapter Report. The Gamma Theta presidents during this period were Kenneth Bassler (Fall 2011) and Vincent Allen (Spring 2012). The chapter advisors were Steve E. Watkins, Theresa Swift, and Sahra Sedigh.
BEST PLEDGE AND BEST PLAQUE AWARDS

The Best Pledge and Best Plaque awards are given out every semester to reward the most outstanding work done by the pledges. The best pledge is determined by a number of factors, including chapter involvement, test scores, banquet ticket sales, spirit and energy, and of course overall effort. The best plaque is determined by the number of signatures collected and by its overall appearance. Choosing the winners of these awards is not an easy task; the pledges each put forth great effort in the organization and in creating their plaque.

This year’s winners for Best Pledge are Dylan Crocker (Fall 2011) and Zach Kirby (Spring 2012). The Best Plaque award went to Vincent Allen (Fall 2011) and to David Allen (Spring 2012). The winners were awarded an HKN medallion and a cash prize for their hard work.

FOUNDER’S AWARD

At the request of Professor Gabriel G. Skitek, the Founder’s Award was created to recognize a pledge or member who has contributed greatly to the success of a Gamma Theta during the semester. This award is given out each semester at the banquet.

This award was unofficially started with a gift of $20 to Esther Erickson, the only pledge to obtain Prof. Skitek’s signature on her plaque. This year’s winners are Vice President Kathleen Venhaus (Fall 2011) and Tours and Coffee Shop Chair Zachary Marsden (Spring 2012). The officers were awarded HKN medallions at the initiation banquets.
OUTSTANDING LEADERSHIP AWARD

The Advisors’ Outstanding Leadership Award honors the dedication of the most exceptional leader in the Gamma Theta chapter. The advisors choose a recipient from the Executive Committee based on their service to the chapter. This year’s winners are President Kenneth N. Bassler (Fall 2011) and President Vincent T. Allen (Spring 2012). The officers were awarded medallions at the initiation banquets.
THE GABRIEL SKITEK SCHOLARSHIP

Professor Gabriel G. Skitek, one of the founding Gamma Theta advisors, established a scholarship upon his retirement to benefit HKN members who display outstanding achievement and show financial need. The recipients are selected by a faculty committee.

For the 2011 fall semester, the Gabriel Skitek Scholarship was awarded to HKN member Kathleen Venhaus.

Professor Skitek was the founding advisor to the Gamma Theta chapter of Eta Kappa Nu. He was an Emeritus Professor of Electrical and Computer Engineering for the University of Missouri-Rolla. He joined the UMR/MSM faculty as an assistant professor in 1949 and retired as a full professor in 1981. He was an alumnus of the department, receiving a M.S.E.E. in 1949 and a B.S.E.E in 1943. His honors include membership in the UMR Academy of Electrical and Computer Engineering (1982), the Education Award from the St. Louis IEEE Section (1981), and the “Outstanding Contributions to UMR” Award from the MSM-UMR Alumni Association (1975). In addition to his lifetime service as a faculty member, Professor Skitek has supported UMR as a member of the Order of the Golden Shillelagh and through the establishment of the Skitek/Eta Kappa Nu Endowed Scholarship. He passed away on September 23rd, 2006, and is greatly missed by our chapter and faculty.

Professor Skitek was a regular supporter of the Gamma Theta chapter and has a better record of attendance at the banquet and initiation than any other faculty member. This record of attendance dates back to the original ceremony for the Gamma Theta chapter in April 1952.
OUTSTANDING SENIOR NOMINATIONS

IEEE-HKN describes this student award program as “The Alton B. Zerby and Carl T. Koerner Outstanding Electrical and Computer Engineering Student Award recognizes outstanding scholastic excellence and high moral character, coupled with demonstrated exemplary service to classmates, university, community, and country. It is administered by the Los Angeles Area Alumni Chapter.

Begun in 1965, this award has become a traditional means of providing recognition to deserving electrical and computer engineering students. 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. In 1993, the name was further changed to include Carl T. Koerner to honor and perpetuate the memory of Mr. Koerner, an HKN member who had a life-long dedication to Eta Kappa Nu, including serving as its president. Mr. Koerner was the fifth recipient of the prestigious HKN Distinguished Service Award (1975) in recognition of his contributions to the field of electrical engineering and to Eta Kappa Nu.” Computer engineering was formally added as a part of HKN in 2000.

The Gamma That Chapter is an active participant in the Zerby-Koerner student award program. The 2012 chapter nominee was Kenneth N. Bassler III. Kenneth was selected as a 2012 national finalist. The final selection is pending.

Kenneth was inducted into the Gamma Theta Chapter in Fall 2010. He served as President and Pledge Chair. He has been a volunteer firefighter since 2005. He received a B.S. in Electrical Engineering and a Minor in Business in December 2011 and is now employed by PayneCrest Electric in St. Louis, Missouri.

Kenneth N. Bassler III
2012 National Zerby-Koerner Award Finalist

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**Kathryn Nicole Rodhouse**, the 2011 chapter nominee, was selected as the 2011 national winner. She received the award in Austin, Texas at the March 2012 joint meeting of the ECE Department Heads Association and HKN Board of Governors. Katie was inducted into the Gamma Theta Chapter in Fall 2008. She served as HKN Secretary and Pledge Chair (twice) and was active in Zeta Tau Alpha (Eta Theta Chapter), Lutheran Student Fellowship, and the Society of Women Engineers. She received the 2011 IEEE Region 5 Larry K. Wilson Student Activities Award, the 2010 IEC William L. Everitt Student Award of Excellence, the 2011 Missouri S&T Greek Woman of the Year Award, and the first Honors Scholar in Computer Engineering (Missouri S&T) designation. She received a B.S. in Computer Engineering and Minors in Mathematics and Computer Science in May 2011 and an M.S. in Computer Engineering in August 2012. Her advisor was Dr. Steve E. Watkins. She now works for Sandia National Laboratories.

Katie is the fourth Gamma Theta member to receive this National HKN Award. Previous winners are Benjamin R. Moss in 2006, Andrew L. Sears in 1995, and Steve E. Watkins (current chapter advisor and faculty advisor to Katie and Andrew) in 1983. Other members have been recognized as honorable mentions: Tori J. Ratliff (2009), Jacquelyn K. Stroble (2005), Joseph T. Case (2003), David A. Willming (1986), James K. Haberstock (1982), Dennis Leitterman (1976), and James A. Paulter (1973).
ENGINEERS WEEK 2012

NEW FACES OF ENGINEERING

As part of Engineers Week, various technical societies recognize young engineers under the age of thirty for their early accomplishments. The recognition program highlights the interesting and significant work within the engineering fields. Twelve young engineers were recognized in 2012 and were featured on the Engineers Week website and in the February 21, 2012 issue of USA Today.

Dr. Jacquelyn K. S. Nagel was selected by IEEE-USA from the nomination by Dr. Steve E. Watkins. Dr. Nagel is an assistant professor at James Madison University where she is developing approaches and tools for bio-inspired design. (See J. K. Stroble, et al., Biology-inspired Sensor Design,” IEEE Potentials 28(6), 19-24, (2009)) She received a PhD from Oregon State University and MS and BS degrees from the University of Missouri-Rolla (now, Missouri University of Science and Technology). She has been active in IEEE, HKN, and SWE.

Dr. Nagel was initiated into HKN by the Gamma Theta Chapter. She was the 2005 chapter nominee for the Alton B. Zerby and Carl T. Koerner Outstanding Electrical and Computer Engineering Student Award. She was recognized as honorable mention for that award year. Also, her member profile appeared in The Bridge (108(1), 24-25, (2012)).

Dr. Jacqueline K. S. Nagel
2012 New Faces of Engineering
Selected by IEEE-USA
IEEE NEWS

Dr. Theresa Swift, Assistant Teaching Professor in ECE and HKN chapter advisor, was selected for an IEEE Section Outstanding Educator Award. The St. Louis Section of the Institute of Electrical and Electronics Engineers (IEEE) presented this award as part of their annual awards program for 2011. The St. Louis Section includes eastern Missouri and southern Illinois and incorporates Missouri S&T, UMC, St. Louis University, Washington University, Southern Illinois University at Carbondale, and Southern Illinois University at Edwardsville.

Dr. Steve E. Watkins, ECE Professor and HKN chapter advisor, is the IEEE Region 5 Ethics Competition Chair, is the 2012-2013 Government Activities Chair for IEEE Region 5, and is a member of IEEE-USA the Government Relations Council. He has previously served as North Area Chair and Student Activities Coordinator for IEEE Region 5. Region 5 includes states of Arkansas, Colorado, Kansas, Louisiana, Missouri, Oklahoma, Texas, and parts of the surrounding states.

David C. Macke Jr., senior in Electrical Engineering and Gamma Theta member at Missouri S&T, is the 2012-2013 Student Representative for IEEE Region 5. In this position, he assists the Region 5 Student Activities Coordinator with all student branch training, communications, and competitions and serves as a non-voting member of the region executive committee. Also, the Missouri S&T team of Macke and Corbin LeGrand placed third in the 2012 IEEE Region 5 Ethics Competition.

James V. Leonard, Senior Technical Fellow at Boeing BDS, St. Louis, was recognized by the IEEE as a Member First 50 Years. This recognition goes to individuals who were members during the AIEE and IRE merger in 1963 to form IEEE and who have been continue member since. Mr. Leonard was initiated into the Gamma Theta HKN Chapter in 2005.
Eta Kappa Nu
Gamma Theta
Chapter

Interaction
with Faculty and Peers

at
Missouri University
of Science and Technology
CHAPTER MEETINGS

General Meetings

The Gamma Theta chapter conducts about sixteen general meetings every year, where members and pledges have the opportunity to get involved in a wide variety of events and services. The officers discuss new and old business, and welcome suggestions and insight from all members, pledges, and advisors. This interaction helps to constantly improve our chapter and also to provide our members with new activities and services.

Every other Tuesday at 7:00pm, HKN members, pledges, and advisors gather in room G31 of Emerson Electric Co. Hall to participate in the general meetings. The meetings usually begin with brainteasers or trivia, or the now very popular game of HKN “Jeopardy!” Following the trivia, the officers get down to business. Each officer or committee chair gives a report and any business items are discussed with all of the members. Issues and concerns are addressed and voted upon. The president acts as the moderator, ensuring that all business is conducted smoothly. Members are given the opportunity to sign up to give departmental tours, or to work in the weekly coffee shoppe. Some general meetings end with presentations from professors or industry professionals, where they speak on topics ranging from new technology to ongoing or breakthrough research.

Playing HKN “Jeopardy!”
Meeting Highlights

A favorite event at the general meetings is a game of Jeopardy! This event started years ago and was traditionally played by pledges before the pledge test, until former president Ryan Bales found a template of the Jeopardy! board and opened the game to all members. At the occasional general meeting, the chapter president assumes the role of Alex Trebek and leads the members through categories such as “Electrical Enigmas,” “Brutal Branding,” and “Wordplay Wizardry.” Members show off their knowledge of chapter history, electronics, and obscure subjects as they compete for candy. In recent years, the chapter has added new trivia challenges, including “Who Wants to be an Engineer?” based on the popular game show “Who Want to be a Millionaire?”

Electrical Enigmas for $100:
A: This used to be referred to as a condenser.
Q: What is a capacitor?

Engineering on Tape for $100:
A: The answer to Life, the Universe, and Everything, according to one author.
Q: What is 42?

Anagram Absurdity for $500:
A: This core EE class:
   GET TEN REAL COMICS
Q: What is Electromagnetics?
**Officer Meetings**

Officer meetings are conducted during the weeks in which there is no general meeting. Here, the tone is more serious as the officers plan events and discuss business items in detail. The officer meetings are primarily concerned with happenings like the company dinner and pledging events. Many hours of planning and discussion occurred at these meetings, where the officers arranged the date, time, location, and format of the dinner. At officer meetings after events such as the company dinner, the officers and advisors make suggestions for improvements that will work their way into next year's events.

**PLEDGING REQUIREMENTS**

The Gamma Theta chapter's pledging process progresses in the following manner: Invitation to membership, interviews, chapter election, workdays and service, creating a plaque, visits with the faculty, and finally initiation.

**The Plaque**

A pledge's first major duty is making the plaque. Each pledge is given a wooden plaque in the shape of our organization’s symbol, the Wheatstone Bridge. The pledges must prepare the plaque and paint it to exacting standards. After the plaque has been painted, the pledge must visit faculty members and obtain at least forty signatures (including the faculty advisors), along with the signatures of the executive officers at the plaque signing party.
Pledge Week is the second biggest responsibility for new pledges. All pledges must wear business attire, along with a special name tag. This "special" name tag includes the pledge's name and his or her chosen electrical or electronic symbol. Two ribbons hang from the name tag displaying our organization's colors – navy blue and scarlet. The committee continually monitors the dress code and scolds for any deviation.

During Pledge Week, pledges, officers, active members, and advisors are invited to attend the Plagues Signing social. At the social pledges able to acquire signatures and consume pizza and soda in the ECE Lobby. This gives pledges a chance to collect as many signatures as possible from chapter members and officers, and encourages interaction between the pledges, officers, chapter members, and faculty.

Pledge week generally concludes with the famous Workday at the home of a faculty member, where the work ranges from raking leaves to painting a shed. Also, the pledges must complete two tests, the ECE test and the Constitution test. The ECE test covers...
electrical and computer engineering with problems such as resistor cubes, infinite-
resistor ladders, and equivalent circuits. No calculators are allowed; the pledges
must stretch their minds to the breaking point. Occasionally an officer or two will
wander the room, giving bursts of wisdom. The Constitution test covers the local
chapter history and constitution, as well as the national HKN history. The final part
this test consists of spelling out the entire National HKN Constitution Preamble,
word for word, with no spelling, grammar, or punctuation mistakes. For extra credit,
the pledges may list the names of as many of the officers and members of Gamma
Theta chapter as they can remember.
**Initiation Banquet**

After twelve weeks, the end is in sight for the pledges. The initiation banquet makes all the hard work worthwhile. Usually, the Initiation Banquet starts off with a wonderful dinner (or sometimes lunch) at Zeno’s Steakhouse in Rolla. After the meal, the pledges take the Gamma Theta oath and sign their names in ‘The Book.’ All active members and advisors present at the banquet officially welcome each new member. While this is a long process, it is very important to our chapter that each new member understands that he or she belongs to an exceptional society. The banquet serves as a reward to the hard work and dedication of each new member. Finally, a guest speaker will wrap up the meeting.

**Summary of Pledging Requirements**

- Pledges must attend all of the general meetings.
- Pledges must attend an interview with one or more officers.
- A test over the basics of electrical and computer engineering (i.e. EE 151/153, CpE 111) and a test over the local bylaws, national constitution, and additional chapter information must be passed satisfactorily. If the test cannot be taken on the assigned date, other arrangements must be made beforehand. The test(s) may be retaken once each if necessary.
- The Preamble to the National Eta Kappa Nu Constitution must be known.
Each pledge will be required to write the Preamble from memory at the Constitution test. All spelling and punctuation must be correct.

- Pledges must make a plaque according to the specifications. A total of forty signatures must be obtained. These forty signatures must include all of the current officers and the chapter faculty advisors. The rest of the signatures will include faculty members and active members of HKN (names can be found on the website). Extra credit will be given towards the best plaque and best pledge for additional signatures.

- Pledges must attend the Plaque Signing.

- During Pledge Week, all pledges will wear a name tag bearing their name, an electrical or electronic symbol, the words “Eta Kappa Nu,” a navy blue ribbon, and a scarlet ribbon. Pledges are expected to be properly attired for Pledge Week in business formal, i.e. coat and tie, or dressed as nicely as possible.

- Pledges must sell at least two banquet tickets.

- All pledges must complete their Workday.
POOL TOURNAMENT

Every spring, the chapter tries to have at least one fun activity outside of general meeting for members and pledges to attend. In previous years, the chapter has had such events as paintball outings and bowling night. This year the chapter decided to try something different. During the week of a regular meeting, the officers voted to instead have a pool tournament. Chapter members were invited to play pool with the officers and the ECE department faculty on February 5, 2012. The event was very popular and everyone had a great time.
PLEDGE SMOKER

The Pledge Smoker is usually a student's first introduction to Eta Kappa Nu. Our officers strive to make it a memorable first impression of the organization. The Fall 2011 smoker was held at the Schumann Park Lower Pavilion on September 20th. As always, the turnout was excellent as members and new pledges enjoyed a sunny day, pizza, and good company. The Spring 2012 smoker was held on January 31st in the Missouri Room of the Havener Center.

Food and soda were provided at both events, and the pledges got a chance to meet with chapter members, officers, and advisors to learn what the organization is about. Officers reminisced about past HKN events while pondering ideas for new events and describing their duties to prospective members.

Pledges and current members interact over pizza and soda.
FALL 2011 INITIATION BANQUET

The Fall 2011 banquet was held on November 13th in the Carver-Turner room in S&T's Havener Center. Nine undergraduate students, two graduate student, and three eminent members were inducted into Eta Kappa Nu before a crowd of members and faculty.

The banquet started off with dinner, followed by the initiation ceremony and presentation of awards. President Kenneth Bassler acted as master of ceremony. Following the awards, Sandra Magnus gave a speech to the new members.

Dr. Sandra Magnus is an engineer and a NASA Astronaut. She earned degrees in physics and electrical engineering from the Missouri University of Science and Technology before earning a PhD in materials science and engineering from the Georgia Institute of Technology in 1996. During the 1980s, Magnus worked on stealth aircraft design as an engineer for McDonnell Douglas. She worked on the propulsion system for the A-12 Avenger II until the project was canceled by the Navy in 1991. Magnus was selected as an astronaut candidate in 1996 and flew her first space mission, STS-112, in October 2002 as a mission specialist. She went on several other NASA missions including NEEMO 11, Expedition 18, and STS-135.
SPRING 2012 INITIATION BANQUET

The Spring 2012 banquet was held on March 15th in Missouri S&T's Havener Center. Nine undergraduate students, three graduate students, and one eminent member were inducted into Eta Kappa Nu before a crowd of members and faculty.

The banquet started off with dinner, followed by the initiation ceremony and presentation of awards, both led by president Vincent Allen. Following the awards, Cheryl B. Schrader gave a speech to the inductees and other attendees.

Dr. Cheryl B. Schrader became chancellor of Missouri University of Science and Technology on April 2, 2012. A former dean of engineering at Boise State University, Schrader is the 21st leader in Missouri S&T's 141 year history.

Schrader earned a bachelor of science degree in electrical engineering from Valparaiso University in Valparaiso, Ind., in 1987. She earned her master of science and PhD degrees in electrical engineering from the University of Notre Dame in 1987 and 1991, respectively. A past president of the IEEE Control Systems Society, she continues to serve as a member of the ABET Engineering Accreditation Commission.

Schrader is a recipient of the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring from the White House (2005); the IEEE Education Society Hewlett-Packard/Harriett B. Rigas Award; the Idaho Woman making History Award; and the WebCT Exemplary Online Course Award.
Communication and Publicity

at
Missouri University of Science and Technology
After the Electrical and Computer Engineering building renovations, the Gamma Theta chapter was left without a display case to promote activities, members, and contact information. A $400 glass-fronted oak display case was commissioned with a routed bridge symbol inside. The result was spectacular. Internal designs were laid out and approved for photographs, plaques, HKN information, and officer listings. After the success of our display case, the Gamma Theta chapter coordinated with other student groups serving the ECE department. The Missouri S&T Toastmasters, IEEE, and Amateur Radio groups purchased similar display cases to be placed side-by-side. The wall outside the ECE auditorium is now a showcase for student organizations.
In fall 2007, another larger display case was purchased for display in the first floor hallway of Emerson Electrical Co. Hall. Dr. Steve E. Watkins informed the members about a local business that was closing and had several large cases for sale. After some discussion, it was agreed that one of the cases should be purchased. The case was filled with HKN memorabilia and various pieces of electrical equipment. This display, like its companion, serves to display information about HKN to anyone who passes it.
GAMMA THETA WEBSITE

The chapter website has gone through many changes since it was first created. The original design of the site lacked an overall hierarchy, was missing key information about committee activities, and did not have a consistent look and feel. The current design improved the content, functionality, and appearance, and is well-received by all chapter members. The biggest change involved the University's name change. The website's address and appearance were changed to reflect the new name. In addition to the redesign for the name and domain change, improvements were made to the website including easier-to-access menus, compatibility with Google documents, and a password protected area for Gamma Theta members.

Along with the website updates, all of the meeting minutes dating back to Fall 2000 have been converted and posted in the member's area of the website in a consistent HTML format. With this conversion, our chapter history is now more accessible making easier for members to locate information from past meetings. The Gamma Theta chapter website is located at http://web.mst.edu/~hkn/.

The Gamma Theta chapter home page
BRIDGES AROUND CAMPUS

To increase our visibility to the students, the chapter has placed two Bridges in and around the ECE building. The first is a golden six-foot presence in the downstairs lobby of the ECE building, across from the vending area. The second is a steel monument that dominates the planter outside the ECE breezeway on the main walkway through the center of campus. The latter Bridge was installed in 2000. No student can spend much time in the ECE building without spotting an HKN Bridge.

Bridges are located inside the ECE lobby (top) and along the main route through campus (bottom)
HKN SPACE MEDALLION

Dr. Sandra H. Magnus, Missouri S&T alumnus, invited the ECE Department to provide a commemorative item to fly during her space shuttle mission. The department selected and engraved a HKN medallion as shown below. Her shuttle assignment was as Mission Specialist 1 on STS-135 during July 8-21, 2011. This flight was the final mission of the Space Shuttle Atlantis and the final mission of the NASA Space Shuttle program. She presented the medallion to the HKN Chapter and the ECE Department at the November 13, 2011 Gamma Theta Initiation Banquet. The medallion is on display in the HKN display case.

Dr. Magnus, native of Belleville, IL, earned a bachelor's degree in physics from Missouri S&T in 1986 and a master's degree in electrical engineering from the campus in 1990. She earned a Ph.D. from Georgia Institute of Technology in 1996. Selected by NASA in 1996, she completed her first space flight in 2002 aboard the Atlantis. Her second flight took her to the International Space Station, where she lived for more than four months, between November 2008 and March 2009. Most recently, she was a member of the Atlantis crew, which made the 135th and final mission of NASA's space shuttle program. (Magnus Photograph courtesy of NASA)
CHAPTER PRESS

The Gamma Theta Chapter submitted a report on the Fall 2011 Initiation for The Bridge. This article was included in the Chapter in Action section of the May 2012 issue (The Bridge (108(1), 24-25, (2012)). It described our initiation including the presentation of an IEEE-HKN Medallion flown on the last Shuttle Flight with Dr. Sandra Magnus and the associate pre-college event which was supported through the IEEE PACE program. The pre-college activity was featured in the newsletter for the St. Louis Section, ION St. Louis, Winter 2011 issue.

Dr. Steve E. Watkins, Gamma Theta Chapter Advisor, authored an overview article on Eta Kappa Nu for the IEEE Potentials magazine. The article titled “IEEE-HKN: The Electrical and Computer Engineering Honor Society” appeared in the July/August 2012 issue (IEEE Potentials, 31(4), 19-21, (2012)).
Services
to the Students, the Department, and the Community

at
Missouri University of Science and Technology
COMPANY DINNER

Given the success of the previous five Company Dinners, HKN members and the companies were excited to have a sixth dinner. In 2006, several of the companies had expressed that they would prefer the Company Dinner to occur before the Fall Career Fair rather than the Spring Career Fair. Since that year, HKN Company Dinners have taken place in the Fall semester. The seventh annual HKN Company Dinner was held on the evening of September 26th, 2011, at Benton Square Restaurant & Lounge, in Rolla.

As in previous Company Dinners, the chapter invited several companies to the dinner, and companies attended and sponsored the event. Those companies were Adtran, Dynetics, and Garmin. Thanks to the gracious contributions of the sponsoring companies, the dinner is free to students.

At the dinner, each company gave a short presentation, which consisted of describing the company, the work environment, and in general why it was a good place to work. Each table had one or two representatives from each of the companies, and the students were seated at those tables based on their preference for the companies. In this way, most of the students were able to sit and interact with the company in which they were most interested.

The HKN Company Dinner is a great way for some of our best and brightest students to spend quality time and enjoy a good meal with potential recruiters. The event is mutually beneficial to students and recruiters since it allows them to interact in a relaxed, social setting. Students from the ECE department attended, and the
event was a huge success.

An additional benefit of the dinner is that it serves as a fundraiser of sorts for the ECE department. The funds remaining after paying for the dinner can be used for departmental activities, equipment, or scholarships.
ECE COFFEE SHOPPE

Coffee, donuts, and good company are a few of the things that are available at the ECE department every Friday morning. From 8am to 11am, three members or pledges take their shift selling donuts, coffee, tea, hot chocolate, milk, and orange juice to faculty and students in the ECE lobby. With the exception of coffee and milk, all items are $0.25 each. This event was not created as a fundraiser, but rather a service to the department. HKN wants to see the faculty and students connect outside of the classroom. Eta Kappa Nu is breaking ground between students and faculty, by helping both parties become more acquainted with one another. The ECE faculty has their own lounge and coffee, but many choose to buy ours because they respect our efforts. This just goes to show that strong bonds have been formed with the faculty.

Many students buy some refreshments, take a seat in the lobby area, and read over their notes or the latest edition of The Missouri Miner, the campus newspaper. Other students use the service as breakfast so they don’t have to wake up as early in the morning to go somewhere else or make it themselves. Each week, HKN sells approximately 60 donuts. Throughout the course of the year, the volunteers supply over 1500 twenty-five-cent donuts to the ECE students and faculty. Since the Coffee Shoppe was intended as a service to the department rather than a fundraiser, there is no profit made from it. With the recent price increases due the economy, the chapter actually began losing money on the Coffee Shoppe towards the end of the fall 2007 semester. While the chapter could have raised prices to offset the costs, it was decided by the officers that the prices should remain the same since the Coffee Shoppe is a service that is done for the department and not a fund raiser.

HKN continues to offer many of the other items added in the 2005-2006 academic year. In addition to the donuts, coffee, milk, and juice, the Friday morning Coffee Shoppe is also a great place to get yogurt-covered granola bars, tasty herbal teas, and various snack cakes. There are also polo shirts and breadboards available for those students who wish to truly represent their department in style and in action.
ECE DEPARTMENTAL TOURS

Potential students and their parents visit Missouri S&T and the ECE department throughout the year. Since demand for the tours varies greatly as does the availability of volunteers, Gamma Theta chapter manages a group of student volunteers who serve as guides whenever called upon. The student tour guides must become familiar with all aspects of the ECE building and program. These students are the official representatives of the Missouri University of Science and Technology and the department of Electrical and Computer Engineering. They strive to leave a lasting impression of the campus to potential students and their parents, as well as set a good example to other students in the department.

In the past, chapter volunteers often gave as many as twelve tours to more than eighteen potential students and their families every year. This year, thanks to an overwhelming effort by department seniors, who are given the opportunity to perform some volunteer work for the department as part of their senior projects, our chapter volunteers were only needed for seven tours. While this is not as impressive number as has been seen in previous years, our chapter feels that service to our department, no matter how small, is still important; perhaps our dedication in volunteering may have influenced other students to do the same.
The Student Projects Laboratory is an environment open to all students providing the equipment, tools, and parts necessary to design, build, and test any project requiring electricity. Electrical and computer engineering students can benefit from this resource where class labs can be finished, new hobbies can be started, and senior design projects can be completed.

The Student Projects Laboratory (SPL) is located in room 202 in the ECE department. The lab serves as a great resource for students, hobbyists, senior design projects, student design teams, and chapter events. Membership to the SPL is free to all HKN members, but any Missouri S&T student can join the SPL through payment of nominal dues ($5 per semester or $10 per year). Design teams of two or more can also join.

Inside the lab, students can use the soldering equipment, oscilloscopes, function generators, power supplies, the extensive work area, and more to work on their projects. The SPL Chair keeps the electronics cabinet stocked with components and the refrigerator stocked with soda, so students can purchase, build, and finish those last-minute projects. The lab equipment gets plenty of use by HKN members; students can often be found soldering away on their projects in the SPL.

Since the SPL is used so frequently by students, the chapter has made changes to the lab over the years so that it better suits the needs of the students. A couch now sits in the corner of the lab and serves as a comfortable study area for the students.
who frequent the SPL. The SPL Chair, with the assistance of other members and even a pledge or two, will clean and sometimes reorganize the lab making it a better more organized space and allowing students to quickly find what they need.

The lab also serves as a gathering place during workdays. Once or twice a semester, the Pledge Committee will hold a plaque workday, where pledges can sand, stain, paint, and seal their plaques. The events draw a large number of the pledges, which allows the pledges and officers to become better acquainted as the pledges learn more about the events of HKN.

The SPL is funded through memberships, donations, equipment grants, faculty support, and funds from the Gamma Theta chapter. The chapter has established the Golden Resistor Award and the Golden Resistor Club to recognize the generosity of those who have donated to the lab.

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**Golden Resistor Award**

Only through generous donations made by individuals, organizations, and businesses can the Lab provide the most up-to-date and extensive equipment and parts. The Golden Resistor Club was started for one purpose only—to honor those people who have helped the Student Projects Lab keep up with the needs of the students.
PLEDGE WORKDAYS

One of the pledging requirements for all Gamma Theta pledges is to attend a Workday. Traditionally, the pledges will go to an ECE faculty member's home to do tasks ranging from raking leaves to painting sheds. In return, the faculty members make a donation to the chapter. The Fall workdays were October 15th and November 5th. Pledges worked for professors and raised money for the chapter while fulfilling the pledging requirements, making it mutually beneficial for all parties. The Spring workdays were held on March 10th and 24th at ECE professors' houses.
RECYCLING

Since the fall 2007 semester, the chapter conducts a plastic recycling project in the ECE building. The chapter set up a plastic receptacle near the main entrance of the building. Members of the chapter volunteer to empty the recycling receptacle, and the plastic bottles are taken to a recycling center. The chapter also creates signs for the ECE building encouraging students to recycle all of their recyclable material. The signs can be found near the recycling bins throughout the building.
PRE-COLLEGE EVENT WITH DR. SANDRA MAGNUS

Dr. Sandra H. Magnus, Missouri S&T alumnus and shuttle astronaut, was initiated into HKN by the Gamma Theta Chapter on November 13, 2011. During her visit to the campus, the Gamma Theta Chapter, in conjunction with IEEE PACE support from IEEE St. Louis Section and IEEE Region 5, hosted a pre-college event to promote interest in science and engineering careers. Twenty-four middle-school students and teachers from Rolla-area schools including Rolla 31, St. Patrick School, St. James R-1, Salem R-80, and Dent-Phelps R-3 attended a pre-college reception and question session with Dr. Magnus. Afterwards, the pre-college participants attended the IEEE-HKN ECE honor society initiation banquet at which Dr. Magnus was the featured speaker and met the ECE college students and faculty. One of the teachers commented, “The pre-college event opened the eyes of my students about the possibilities available for their futures. Just attending an event on the campus of a major university made them feel special.” Another said, “As a teacher I found it hugely impressive for them (his students) to see the college students, to interact with them and to get a view of future education and career choices. Thank you for including us in this event.”

Each pre-college student and teacher were photographed with Dr. Magnus. The event was organized by Dr. Steve E. Watkins, IEEE-HKN Advisor and S&T Faculty member. (Photographs courtesy of Avalon Photography)
Eta Kappa Nu
Gamma Theta
Chapter

Business
HKN by the Numbers

at
Missouri University of Science and Technology
OFFICERS AND COMMITTEE CHAIRS

The officers and committee chairs are much more than just the people who run the meetings and fill out formal paperwork. They provide direction for the semester and help out the committees and all members. School work, social activities, and leadership in Eta Kappa Nu must be carefully balanced. There are several skills necessary, including foresight, humor, and a good ear—some of our most popular projects were from simple informal suggestions. The Gamma Theta chapter appreciates all the hard work and patience these individuals have offered.

Elected Officers

<table>
<thead>
<tr>
<th>Office</th>
<th>Fall 2011</th>
<th>Spring 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Kenneth Bassler</td>
<td>Vincent Allen</td>
</tr>
<tr>
<td>Vice President</td>
<td>Kathleen Venhaus</td>
<td>Kathleen Venhaus</td>
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<tr>
<td>Secretary</td>
<td>Christopher Bessent</td>
<td>Daniel Pham</td>
</tr>
<tr>
<td>Coordinating Secretary</td>
<td></td>
<td>Victor Delgado</td>
</tr>
<tr>
<td>Treasurer</td>
<td>Adam Reab</td>
<td>Adam Reab</td>
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<tr>
<td>Bridge Correspondent</td>
<td>James Freeman</td>
<td>Nicholas Erickson</td>
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<tr>
<td>Faculty Advisors</td>
<td>Dr. Steve E. Watkins</td>
<td>Dr. Steve E. Watkins</td>
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<td></td>
<td>Dr. Theresa Swift</td>
<td>Dr. Theresa Swift</td>
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<td></td>
<td>Dr. Sahra Sedigh</td>
<td>Dr. Sahra Sedigh</td>
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</table>

Appointed Committee Chairs

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<tr>
<td>Pledging</td>
<td>Nicholas Erickson</td>
<td>Jeremy Johnson</td>
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<tr>
<td>Student Projects Lab</td>
<td>Kyle Schaefer</td>
<td>Aaron Wilhelm</td>
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<tr>
<td>Tours/Coffee Shop</td>
<td>Kevin Robison</td>
<td>Victor Zach Marsden</td>
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<td>Daniel Pham</td>
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<td>Fund Raising/Services</td>
<td>Justin Schlechte</td>
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<tr>
<td>Representative</td>
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</table>
Summary of Officer Duties

President: Presides over all meetings, carries out special meetings, oversees all committees, coordinates chapter activities, informs the membership of events through e-mail, meets regularly with the advisors, motivates the membership, and represents the chapter.

Vice President: Serves in absence of the president, chairs the Pledge Committee, is in charge of all aspects of the pledging process, coordinates joint activities with the IEEE Student Branch, and plans the banquet.

Secretary: Records all meeting minutes, maintains the membership list, handles correspondence, provides the Communications Chair with meeting minutes and member lists, and keeps meeting attendance.

Coordinating Secretary: Maintains the chapter e-mail listserve, publishes the chapter website, and updates the website upon request from other officers.

Treasurer: Handles bank accounts for the chapter and the Student Projects Lab, chairs the fund raising committee, and prepares the required financial summary.

Bridge Correspondent: Prepares the Annual Chapter Report, acts as the chapter historian, and maintains a photographic and written history of the semester's activities.

Pledge Chair: Helps the vice president with pledging activities, and communicates with pledges by e-mail.

Student Projects Lab Chair: Oversees the operation, maintenance, and membership of the Student Projects Lab, and maintains an adequate supply of parts for student projects.

Tours Chair: Organizes all student-led tours that take place in the ECE department, and organizes the weekly coffee shoppe.

Marketing Chair: Promotes all chapter social events.

Fundraising and Services Chair: Organizes breadboard sales, workdays, fund raising events, and all public service projects.
# MEETING AND EVENT SCHEDULES

## Fall 2011

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<td>29-Aug</td>
<td>Officer Meeting</td>
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<td>9-Sep</td>
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<td>Pledge Smoker</td>
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<td>Company Banquet</td>
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**Spring 2012**

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<td>2-Mar</td>
<td>Coffee Shoppe</td>
<td>EE Lobby</td>
</tr>
<tr>
<td>6-Mar</td>
<td>Officer Meeting</td>
<td>202 EE</td>
</tr>
<tr>
<td></td>
<td>Constitution Retakes</td>
<td></td>
</tr>
<tr>
<td>9-Mar</td>
<td>Coffee Shoppe</td>
<td>EE Lobby</td>
</tr>
<tr>
<td>10-Mar</td>
<td>Workday #1</td>
<td>Professors Houses</td>
</tr>
<tr>
<td>13-Mar</td>
<td>General Meeting</td>
<td>G31 EE</td>
</tr>
<tr>
<td></td>
<td>Plaque Work</td>
<td></td>
</tr>
<tr>
<td>19-Mar</td>
<td>Peer Advising</td>
<td>202 EE</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
<td>Location</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>20-Mar</td>
<td>Plaque Work Time</td>
<td>202 EE</td>
</tr>
<tr>
<td>23-Mar</td>
<td>Coffee Shoppe</td>
<td>EE Lobby</td>
</tr>
<tr>
<td>24-Mar</td>
<td>Workday #2</td>
<td>Professors Houses</td>
</tr>
<tr>
<td>3-Apr</td>
<td>General Meeting</td>
<td>G31 EE</td>
</tr>
<tr>
<td></td>
<td>Officer Nominations</td>
<td></td>
</tr>
<tr>
<td>6-Apr</td>
<td>Coffee Shoppe</td>
<td>EE Lobby</td>
</tr>
<tr>
<td>9-Mar</td>
<td>Plaque Signing</td>
<td>EE Lobby</td>
</tr>
<tr>
<td>10-Mar</td>
<td>Officer Meeting</td>
<td>202 EE</td>
</tr>
<tr>
<td>11-Mar</td>
<td>Plaque Work Time</td>
<td>202 EE</td>
</tr>
<tr>
<td>13-Apr</td>
<td>Officer Meeting</td>
<td>202 EE</td>
</tr>
<tr>
<td></td>
<td>Coffee Shoppe</td>
<td>EE Lobby</td>
</tr>
<tr>
<td>15-Mar</td>
<td>Initiation Banquet</td>
<td>Havener Center -</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Meramec Gasconade</td>
</tr>
<tr>
<td>17-Apr</td>
<td>General Meeting</td>
<td>G31 EE</td>
</tr>
<tr>
<td></td>
<td>Officer Elections</td>
<td></td>
</tr>
<tr>
<td>20-Apr</td>
<td>Officer Transitions</td>
<td>202 EE</td>
</tr>
<tr>
<td></td>
<td>Coffee Shoppe</td>
<td></td>
</tr>
<tr>
<td>27-Apr</td>
<td>Coffee Shoppe</td>
<td>EE Lobby</td>
</tr>
</tbody>
</table>
IRS REPORTING

For the previous fiscal year from July 1, 2011 to June 30, 2012, Gamma Theta's receipts did not exceed $25,000. This was reported to the IRS by way of filing an IRS 990-N on October 5, 2012.
INDUCTEES

**Fall 2011**

At the beginning of the Fall 2011 semester, the Gamma Theta chapter had twenty active members. We invited fifty-two students to join and inducted nine undergraduates. We inducted two graduate members. Two faculty or professional members were inducted.

<table>
<thead>
<tr>
<th>Undergraduates</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vincent Allen</td>
<td>Dr. Anil Mehta</td>
</tr>
<tr>
<td>Brad Trapp</td>
<td>Arun Gunasekaran</td>
</tr>
<tr>
<td>Jeremy Johnson</td>
<td></td>
</tr>
<tr>
<td>Daniel Mahoney</td>
<td></td>
</tr>
<tr>
<td>Austin Damescik</td>
<td></td>
</tr>
<tr>
<td>Mark Hickle</td>
<td></td>
</tr>
<tr>
<td>Janell Woolsey</td>
<td></td>
</tr>
<tr>
<td>Stephen Moerer</td>
<td></td>
</tr>
<tr>
<td>Dylan Crocker</td>
<td></td>
</tr>
</tbody>
</table>

**Spring 2012**

During this semester the chapter had nineteen active members. We invited fifty-three undergraduates to join and inducted nine of them. We inducted two graduate members this semester. Dr Cheryl B. Scrader, the chancellor of Missouri University of Science and Technology, spoke at our Induction Banquet and was also inducted.

<table>
<thead>
<tr>
<th>Undergraduates</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Allen</td>
<td>Dr. Jun Fan</td>
</tr>
<tr>
<td>Mohammad Alrabiah</td>
<td>Adam Sampson</td>
</tr>
<tr>
<td>Jeffrey Becker</td>
<td>Dr. Maciej Zawodniok</td>
</tr>
<tr>
<td>Kathryn Isbell</td>
<td></td>
</tr>
<tr>
<td>Keenan Johnson</td>
<td></td>
</tr>
<tr>
<td>Zachary Kirby</td>
<td></td>
</tr>
<tr>
<td>Jackson Meyer</td>
<td></td>
</tr>
<tr>
<td>Kancy Robison</td>
<td></td>
</tr>
<tr>
<td>Matthew Robinson</td>
<td></td>
</tr>
</tbody>
</table>
ACTIVITIES TIME SHEET

Throughout the year, HKN members and officers have worked tirelessly on new and continuing events. The following enumerates our chapter's vast efforts. These activities are described in the previous sections.

**Fall 2011**

<table>
<thead>
<tr>
<th>Event</th>
<th>Person-Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Meetings</td>
<td>105</td>
</tr>
<tr>
<td>Officer Meetings</td>
<td>30</td>
</tr>
<tr>
<td>Coffee Shoppe</td>
<td>39</td>
</tr>
<tr>
<td>Pledge Smoker</td>
<td>24</td>
</tr>
<tr>
<td>Pledge Workdays</td>
<td>40</td>
</tr>
<tr>
<td>Plaque Signing</td>
<td>29</td>
</tr>
<tr>
<td>Pledge Banquet</td>
<td>36</td>
</tr>
<tr>
<td>ECE Test/Constitution Test</td>
<td>18</td>
</tr>
<tr>
<td>Interviews</td>
<td>18</td>
</tr>
<tr>
<td>Company Banquet</td>
<td>40</td>
</tr>
<tr>
<td>Recycling</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>382</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position</th>
<th>Personal Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>57</td>
</tr>
<tr>
<td>Vice President</td>
<td>10</td>
</tr>
<tr>
<td>Secretary</td>
<td>20</td>
</tr>
<tr>
<td>Treasurer</td>
<td>20</td>
</tr>
<tr>
<td>Bridge Correspondent</td>
<td>30</td>
</tr>
<tr>
<td>Student Council Representative</td>
<td>25</td>
</tr>
<tr>
<td>Pledge Chair</td>
<td>12</td>
</tr>
<tr>
<td>Student Projects Lab Chair</td>
<td>15</td>
</tr>
<tr>
<td>Communications Chair</td>
<td>5</td>
</tr>
<tr>
<td>Tours Chair</td>
<td>26</td>
</tr>
<tr>
<td>Marketing Chair</td>
<td>10</td>
</tr>
<tr>
<td>Fund Raising/Services Chair</td>
<td>40</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>270</strong></td>
</tr>
</tbody>
</table>
## Spring 2012

<table>
<thead>
<tr>
<th>Event</th>
<th>Person-Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Meetings</td>
<td>95</td>
</tr>
<tr>
<td>Officer Meetings</td>
<td>45</td>
</tr>
<tr>
<td>Coffee Shoppe</td>
<td>42</td>
</tr>
<tr>
<td>Pledge Smoker</td>
<td>30</td>
</tr>
<tr>
<td>Pledge Workdays</td>
<td>40</td>
</tr>
<tr>
<td>Plaque Signing</td>
<td>20</td>
</tr>
<tr>
<td>Pledge Banquet</td>
<td>21</td>
</tr>
<tr>
<td>ECE Test/Constitution Test</td>
<td>18</td>
</tr>
<tr>
<td>Interviews</td>
<td>18</td>
</tr>
<tr>
<td>Recycling</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>331</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position</th>
<th>Personal Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>51</td>
</tr>
<tr>
<td>Vice President</td>
<td>45</td>
</tr>
<tr>
<td>Secretary</td>
<td>20</td>
</tr>
<tr>
<td>Treasurer</td>
<td>15</td>
</tr>
<tr>
<td>Bridge Correspondent</td>
<td>10</td>
</tr>
<tr>
<td>Student Council Representative</td>
<td>18</td>
</tr>
<tr>
<td>Pledge Chair</td>
<td>25</td>
</tr>
<tr>
<td>Student Projects Lab Chair</td>
<td>20</td>
</tr>
<tr>
<td>Communications Chair</td>
<td>15</td>
</tr>
<tr>
<td>Tours Chair</td>
<td>25</td>
</tr>
<tr>
<td>Fund Raising/Services Chair</td>
<td>14</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>258</strong></td>
</tr>
</tbody>
</table>
Photos

the Year in Pictures
PHOTOGRAPHS THROUGHOUT THE YEAR

Photos – 67
PHOTOGRAPHS THROUGHOUT THE YEAR
PHOTOGRAPHS THOUGHOUT THE YEAR
PHOTOGRAPHS FROM THE FILES

Steve E. Watkins (Chapter Advisor), Kathleen Venhaus (Chapter Vice President), Kenneth Bassler (Chapter President), Katlyn Peterson (Chapter Communication Chair), and Dr. Sandra Magnus (Guest Speaker and Initiate) - November 13, 2011

J. David Irwin (National HKN President), Kelvin T. Erickson (ECE Department Chair), Benjamin Moss (2006 National Zerby-Koerner Award Recipient), and Steve E. Watkins (Chapter Advisor and HKN BOG Director) - March 19, 2007

Photos – 70
Dr. Daryl Beetner, ECE faculty member and advisor of the Gamma Theta Chapter, was awarded the 2002 HKN C. Holmes MacDonald Outstanding Teaching Award
PHOTOGRAPHS FROM THE FILES

50th Anniversary of Gamma Theta 2002 in Parker Hall
Front Row: Gabriel Skitek (Founding Advisor) and Steve E. Watkins (Chapter Advisor)
Second Row: Daryl Beetner (Chapter Advisor), Scott Uder, Gabe Freiburger, Chris Behrens, Matthew Spalding, and Ann Miller (Chapter Advisor)
Third Row: Eboni Cunningham, David Hendrix, and Jesse Lai,
Fourth Row: Ryan Mangles, William Krekeler, James Fonda, and Vicki Eller

Homer E. Coonce, Founding President of the Gamma Theta Chapter, receives the chapter charter from Ovid W. Eshbach, National HKN President on April 26, 1952
GAMMA THETA IN THE BRIDGE

By Dr. Steven J. Watkins

The Gamma Theta Chapter at Missouri State University has recently undergone a number of exciting changes. In Fall 2011, the chapter initiated a new student chapter, and in Spring 2012, they held their first in-person meeting. This initiative was led by Dr. Sandra Magnus, who serves as the chapter advisor. The chapter has also increased its membership, with over 100 active members as of this writing.

The chapter's activities include hosting guest speakers, participating in community service projects, and organizing social events. In May 2012, the chapter held its first annual banquet, which was attended by over 50 members and featured a keynote speech by Dr. Sandra Magnus.

The chapter is also active in community service, with recent projects including a food drive for a local food bank and a cleanup of a local park. The chapter's leaders are looking forward to continuing their work in the coming year.


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Photos – 73
Activities of Gamma Theta …
University of Missouri-Rolla

The Bridge, 73(3), pg. 14-18, (Spring 1977).
FOR MORE THAN 140 YEARS, WE’VE STOOD FOR EXCELLENCE IN ENGINEERING EDUCATION.

Today, Missouri S&T is one of the nation’s most comprehensive engineering universities, with 15 undergraduate engineering degrees and 18 graduate and Ph.D. engineering degrees.

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