

# THE GEAR

VOLUME XCII, No. 2  
SPRING 2013

of Theta Tau



## *Inside This Issue:*

Alumni news

How chapters live  
long & prosper

Expansion highlights

Recruitment  
lessons shared

New website launch

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The *Gear* is the official magazine of Theta Tau Professional Engineering Fraternity and has been published since 1909. The *Gear* is sent twice per year to all members for whom an address is on file, all chapters, parents of student members, and various engineering colleges across the country. Publication is in the fall and spring of each year with press run/distribution to approximately 17,500. The magazine is about people – our members & chapters, their activities & interests – but distribution is clearly to those with a scientific education, technical experience, and analytical minds.

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#### ON THE COVER

Members of Rho Chapter  
See article on page 7.

# Alumnus Inducted into GWU Hall of Fame

Brother Douglas L. Jones (Gamma Beta '63) was honored as one of six inductees to the George Washington University Engineering Hall of Fame on October 25, 2012. Brother Jones has been affiliated with the GW School of Engineering and Applied Science for more than 50 years, beginning as a part-time undergraduate student and eventually earning three degrees in mechanical engineering from GW: a bachelor's degree in 1963, followed by a master's degree in 1965 and a doctoral degree in 1970. He joined the SEAS faculty in 1968 as an assistant professor and rose through the professorial ranks, ultimately serving as the associate dean for academic affairs before retiring in 2004 as professor emeritus of engineering and applied science. Over the course of his career, he taught and conducted research in solid

mechanics and materials science and in mechanical engineering design. Professor Jones was the principal or co-principal investigator of many research grants, directed 25 master's theses and doctoral dissertations, co-authored an engineering textbook and more than 70 journal articles and conference proceedings, and helped establish a computer-aided design program in the Department of Mechanical and Aerospace Engineering. He served for many years as the advisor to Gamma Beta Chapter and was previously elected to the Theta Tau Hall of Fame.



Brother Douglas Jones (L) being presented by Brother David Dolling, Dean of Engineering

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# TWO WHEELS

Jon Torrey, Gamma Beta '10, is a Theta Tau alumnus currently pursuing graduate work at GWU.

**More than a thousand students** came to campus for the Clinton Global Initiative University with ideas to improve the world. Among them was a GW trio with a bicycle that they hope will save lives.

Backstage at Lisner Auditorium, waiting to see if voters across the country had chosen his group's project as the most compelling in a crop of socially progressive innovations by college students, senior engineering student Matt Wilkins was struck by how surreal his weekend had become.

"We were just hanging out talking to [comedian and Daily Show host] Jon Stewart for 20 minutes," he recalls, still slightly amazed. "I gave him my business card. He showed us pictures of his kids."

It was one in a series of surreal moments that weekend for Mr. Wilkins and his partners, business student Chris Deschenes and engineering master's candidate Jon Torrey. The three were participants in the fifth annual Clinton Global Initiative University (CGI U), a weekend-long event hosted by GW in March that brought together more than 1,000 students from 300 universities, all 50 states, and 82 countries to discuss solutions to pressing global issues, attend sessions with celebrities and experts in the world of social



Photo: William Atkins

*The Pedal Forward team—Chris Deschenes, Jon Torrey, and Matt Wilkins—won the "Commitment to Action" competition with its proposal for a bamboo bike as a practical, concrete solution to a social problem.*

entrepreneurship, and take part in a massive service project.

In order to participate, students had to propose a "Commitment to Action"—a practical, concrete solution to a social problem. For Mr. Deschenes, Mr. Torrey, and Mr. Wilkins, that solution had two wheels and a frame made of one of the world's most common plants.

An avid cyclist as well as an engineer, Mr. Wilkins has long been interested in building his own bikes. "I started thinking of different building materials to use. Steel is boring; aluminum is too hard; titanium is too expensive," he says. "So I went to Google and saw that people make bikes out of bamboo. It immediately clicked in my head: I have bamboo in my backyard. I can cut this down, and it'll cost me nothing."

He enlisted Mr. Torrey, a friend from the engineering school, to help him with the project. "Bamboo's been used to build bikes—to build anything, [including] structures and scaffolding—for a long time," Mr. Torrey explains. "If you take bamboo and you heat- and pressure-treat it, the cellulose cells collapse and form really strong bonds. It's as strong as a metal."

Not only that, Mr. Wilkins adds, but it's also a luxury material. "Carbon fiber is the top-grade material for bike frames—the most expensive, the lightest—and what's best about it is its shock absorbency, so if you ride over bumps it feels like you're sitting on a cloud. But treated bamboo is actually four times more shock absorbent than carbon fiber." It's also lighter than aluminum and, of course, exponentially cheaper than either.

# ON A MISSION

by Ruth Steinhardt, reprinted from the 2012 summer issue of GW Magazine

It was Mr. Descheres, then studying in London, who found out that GW would be hosting CGI U and saw the potential for his friends' project to become something more than a hobby.

Biking is a simple, green solution to problems like urban congestion, as well as an affordable means of transportation for people in underdeveloped countries. The trio could build bamboo bikes—generally priced like works of art, at up to \$8,000—to sell for between \$150 and \$300. For each bike sold, they would donate one to grass-roots organization Bicycles for Humanity, which in turn would distribute them to communities across Africa. They called their project "Panda Cycles" (the project is now called Pedal Forward).

At CGI U, Panda Cycles would join the ranks of hundreds of other innovative and original projects, each proposed and run by college students. From GW, there were—among others—plans to help restaurants donate unsold meals to homeless shelters, create mobile libraries in Central America, and educate women in Rwanda about maternal health. On the second day of the conference, packed hundreds deep onto the floor of the newly renovated Charles E. Smith Center, students from GW and schools across the world networked and chatted about their projects—discussions from which new partnerships and possibilities quickly arose.

"A lot of people I talked to had Africa-focused commitments, and all of them in some way needed a transportation aspect," Mr. Wilkins says. "We spoke with a few people that



*Above: Standard bicycle hardware is used to leverage customized assemblies. Right: The joints are held together using an adhesive-waxed hemp fiber that is circumferentially wrapped to secure each piece.*

Photos: William Athine

wanted, once we were up and running, to link up with us to provide that transportation. For example, some were setting up health clinics—but health clinics being local and very centralized, the workers there need some way to get around to other villages." A Panda Cycle, he pointed out, would solve the problem.

While students made connections with their peers, they also had the opportunity to meet with and learn from heavy hitters in social entrepreneurship. At the opening plenary session, former President Bill Clinton conducted a panel that included, among others, former Secretary of State Madeleine Albright and pop superstar Usher, the chairman and founder of Usher's New Look Foundation.

"There was nothing crazier than watching Usher right next to [GW President] Steven

Knapp right next to Madeleine Albright," Mr. Descheres remembers, laughing. "But that's what made [CGI U] great—you could have this breadth of experience onstage, but they were all on the same page."

That was just the beginning. Participants in CGI U could attend workshops and lectures on topics from promoting nonprofits via social media to working against genocide. And the weekend was punctuated with star-studded panel discussions—including a memorable one with Twitter founder Biz Stone on the importance of failure as a learning experience and a way of measuring risks.

"Failure looks great on a résumé," Mr. Stone said. "All of the experience you get, the ups and downs and highs and lows of that are usually awesome. That's awesome that you tried that. That's the kind of spirit we want."

**“A lot of people I talked to had Africa-focused commitments, and all of them in some way needed a transportation aspect. We spoke with a few people that wanted, once we were up and running, to link up with us to provide that transportation.”**

—Matt Wilkins

“He told us that at Facebook headquarters there’s a wall that just says, ‘Fail Harder,’” says Mr. Deschenes. “I love that.”

That Saturday afternoon, the members of the Panda Cycles team were tense. At 3 p.m., the winner of CGI U’s bracket challenge—a weeklong competition to choose the winning proposal with online votes from around the world—would be announced. Panda Cycles was in the final round, head-to-head with Tufts University’s Village Zero Project, which aims to create a tracking system for outbreaks of cholera in Bangladesh. Mr. Deschenes, Mr. Torrey, and Mr. Wilkins had been summoned to Lisner Auditorium but not yet told the results. That was when they encountered Jon Stewart, also waiting backstage before his conversation with President Clinton would close the conference portion of the weekend.

“He was really supportive of the project,” says Mr. Wilkins, who says he also asked Mr. Stewart to put him in touch with Neil deGrasse Tyson, a renowned astrophysicist and frequent guest on *The Daily Show*, who Mr. Wilkins hoped would speak at the engineering school’s commencement. “That part didn’t work out,” he laughs.

The bracket challenge, however, did. A few moments later, the Panda Cycles team was

onstage with Mr. Stewart and President Clinton, accepting a signed basketball as a “trophy” and hearing the former president praise their initiative as “possibly the beginning of a sustainable livelihood for people all over the world.”

“We really had to pinch ourselves,” Mr. Deschenes says. “When we started this, it was just three guys and an idea, and what’s happened since then is definitely not what we expected—in a good way. I mean, we didn’t reinvent the wheel. We just took two of them and attached them with bamboo and made bikes.”

They may have not reinvented the wheel, but they are among many at GW who are using their ingenuity, skills, and free time to make the world a better place, says GW President Steven Knapp.

“This generation of students is marked by a deep commitment to serve, not just at GW, but worldwide,” President Knapp told CGI U attendees. “And I was inspired by the variety and creativity of our students’ commitments to action.”

*Former U.S. President Bill Clinton praises the Panda Cycles team, made up of GW students, onstage.*



*Photo: Adam Schmitt/Clinton Global Initiative*



(Left) Chelana Clinton takes part in a service project that was part of the CGI U. Participants helped with home repairs in Northeast D.C. and assembled care packages for American troops. (Right) The Panda Cycles team talks with Jon Stewart before CGI U's closing session.

Photo: Jessica McConnell Burt

# People of “The People’s University” — Benjamin Weed

by Allison Matthews, reprinted with permission from Mississippi State University

*Ben Weed, Kappa Beta '07, is a Theta Tau alumnus currently completing research at MSU. Mississippi State has traditionally been known throughout its history as “The People’s University.”*

Benjamin Weed, a biomedical engineering doctoral student, remembers how impressed he was with Mississippi State when the university recruited in his high school. Upon a visit and tour of campus, the Huntsville, Ala., native said department heads, professors and even graduating seniors took time to talk about MSU’s strengths. He was particularly interested in the strong reputation the biological engineering department had for helping graduates get into medical school—one of his goals at the time.

But after Weed became more heavily involved with the sciences as an MSU student, he realized that becoming a clinical physician might not be his calling after all. Research and development for the medical field now entices Weed as his most suitable career choice.

Weed thinks of himself as a scientist, although some might call him an entrepreneur. That’s because the graduate student also is the chief executive officer of Innometrix, a company he developed with his former research class-mate and recent MSU graduate Ali Borazjani, who now studies at the Cleveland Clinic.

Working together under the direction of Dr. Jun Liao, the two students began a project related to women’s health. As their work progressed, they developed a few medical devices focused on treating female pelvic floor disorders.

Now, they are navigating the tasks facing them as inventors and entrepreneurs to patent their products and develop the company to the point when they can see their ideas lead to real-life health solutions for women around the world.

Weed says the pelvic floor disorders that may be treated by Innometrix products in the future are common conditions that develop in more than half of women who have given birth. However, as frequently as the health conditions occur, Weed said there is much less development that has gone into addressing these problems as compared with other health fields, such as cardiology and orthopedics.



Photo: Beth Wynne

“This is definitely going to be a big project for a long time,” Weed said. When he completes his doctoral degree at MSU in May, he hopes to land a postdoctoral research position with the university.

Of pursuing the science behind the medical treatments, Weed explained, “There are plenty of smart people with good ideas. That’s not the

limiting factor on science—it’s always the funding that’s the catch.”

As CEO of Innometrix, he’s working with MSU’s Office of Entrepreneurship and Technology Transfer to further develop his business plans and seek funding for his company.

“It’s busy,” he says, as he reaches for his afternoon cup of coffee. It’s all in a day’s work for the student scientist and entrepreneur. At the end of the day, he shifts focus to family life. He is married to Candace Weed, a research associate in the College of Education, and the couple has a two-year-old son, Connor.



# LIVE LONG & PROSPER



Why are folks giving the Vulcan hand greeting in this photo? Some years back, then-Grand Regent Lee Haas (pictured seated/center) developed a quick lesson for students remembered by forming the Vulcan sign with four fingers of your hand...

Those 4 fingers represent the 4 things that everyone needs for a chapter to live long and prosper. Just 4 things: 2 for pledges and 2 for members.

For prospective members, each pledge is required:  
1) to learn basic historical facts, mission, and purpose of the organization  
2) to learn how to be a good brother

The members have corresponding responsibilities to help with those 2 things above:

1) by teaching and measuring that they have learned our history, mission, and purpose  
2) by showing them how to a good brother – by the example we set, by how we conduct



Lee Haas, Rho '62, and student members of Rho Chapter

ourselves, by how we treat one another, and by how we treat pledges

We teach them to be Good Brothers by being Good Brothers. We teach them to be a good example by being that example. We teach them

by showing them, not by telling them. Whether you realize it or not, you are always showing them something – be sure it's your good side. If you remember those 4 responsibilities – 2 for the pledges and 2 for the brothers – your chapter will live long and prosper.

## The Odyssey

by Santiago Valerio, Omega Gamma '14

Seven brothers began a journey at the edge of two and three in the morning. Some were tired; others were ecstatic. Nevertheless, all were excited for what lay ahead—a Theta Tau regional conference.

At the University of South Carolina, the brothers of Omega Gamma attained many lessons that they brought back to their chapter at Florida International University, including education on managing a chapter, personal networking skills, and how to get a person's name out in the global workforce. The concept

of the six degrees of separation, where networking is treated as an important aspect to an individual's career, was one of the important takeaways of the conference.

A valuable aspect of the journey that Omega Gamma held close to them was the opportunity to meet and converse with other brothers within their own region and the South East region. Great times were shared with brothers at all the events arranged by Zeta Delta Chapter—ideas were shared, future events were planned, and the mutual

growth of the experience between all who participated.

For those brothers who have not yet been able to experience an opportunity of participating in a regional conference, it is highly recommended to partake in such occasions to not only connect to other chapters, but to also strengthen the bonds that have been wrought from that of your own fellowship. For when lines are severed from that of your own home, the brothers who partake in these experiences with you are forever remembered.

# Lessons Learned from Recruitment

by Suel Rodriguez, Omega Gamma '14, and Maria Aramayo, Omega Gamma '14

Here are some tips we've learned to have a smooth and successful recruitment:

## 1. Establish a committee

In our chapter, each chair sets up a committee of brothers for support. Having a dedicated and passionate committee will help you out immensely. There are times when you will not be present at all events, and this is when you will value your committee the most. They represent the fraternity and work hard to make a lasting positive impact. Having an involved committee will help take the load off your shoulders and distribute tasks evenly so that you are able to fit in more activities.

## 2. Get the word out

Advertising is crucial to spread the word about Theta Tau. Print flyers and distribute them everywhere! Hand them out to students in the hallways; put them up on bulletin boards, in the cafeteria, in the library and even in the gym! If your engineering building is separate from the rest of campus, make sure to target the rest of the building so as to reach out to young, future engineers. Flyers make significant impact in attracting those who might be interested or curious, so make sure to have a visually appealing flyer! Design will catch wandering eyes and lead the students to read the flyer.

Also, advertise on social media such as Instagram, Facebook and Twitter. Include these accounts on the flyers so that interested students can follow up with the most recent updates. Be sure to send flyers to electronic displays in school so that they show up; in our case, we have TVs around campus with newsfeeds.

**Advertising is crucial to spread the word about Theta Tau. Print flyers and distribute them everywhere! Hand them out to students in the hallways; put them up on bulletin boards, in the cafeteria, in the library and even in the gym!**

Don't forget to email professors and ask to speak for a few minutes at the beginning of class. Go in pairs, prepare a short speech to entice students to join, and make sure to wear your letters.

## 3. Meet people

People join people, so it is critical to meet potential new members and get to know them! Create a poster with as many pictures as possible of brothers participating in events, including pictures of intramurals and brotherhood events to show that we are not like other engineering clubs on campus, and set up a table in a highly populated area to pass out flyers and candy to students walking by. Be there every day during recruitment.

*Some tips for the table setup:*

- Display a Theta Tau flag in the area
- Make a small PowerPoint presentation and display it on a TV screen or laptop on the table
- Have a sign-in sheet requesting e-mail, phone number, and names so you can send more information about recruitment events
- Have Theta Tau pins, flyers, candy, and whatever else you're planning to hand out ready

Talk to every individual who stops at the table and start establishing a one-on-one relationship—you'll be one step closer to having a new brother. Make a good first impression with solid handshakes, remembering names, eye contact, and confidence.

## 4. Start with a bang!

Make your first event something that will bring in as many potential new members as possible. We have been starting with a BBQ with free food for a few semesters now, and dozens of students are always present. As long as you have free food, students will always stop, so have this event on campus where students that had not previously heard about the event will see it. Some students will show up initially just for the free food, but then they speak to a few brothers and become interested in joining. When a potential member wants to learn more about Theta Tau, every brother should be prepared with not only the features and benefits of membership, but also powerful personal stories and insightful questions to help potential members emotionally connect to our fraternity.

# A New Spin on Recruitment

by Amy Cunningham, Omicron Gamma '14

Recruitment is a stressful but important activity that is necessary for each Theta Tau Chapter to grow. This last September at the University of California, Davis, recruitment chairs Amy Tang and Amy Cunningham implemented new ideas to increase attendance.

The newest addition was the creation of a prize wheel. While advertising for the fraternity, brothers handed flyers to almost every student passing by, but with the new prize wheel students were encouraged to stop at the table and talk with brothers. Engineered from an old bicycle wheel, the prize wheel included gifts such as testing supplies, candy, bubbles, and a mystery prize. The wheel allowed for more time to engage with potential candidates than just flyering would allow.

The second idea implemented was a raffle for each event to encourage attendance at every event; tickets handed out on Monday were for Tuesday's raffle, and Tuesday for Wednesday's raffle. By giving incentives for attendance, we are able to get to know more about each guest while also having more opportunities to show them what Theta Tau is all about! The guests are the future of the fraternity, and by advertising in innovative ways and maintaining attendance, we are able to have the best recruitment possible.



Top right: Omicron Gamma members and the prize wheel. Right: Recruitment chairs describing Theta Tau at an event.

# A Crab Feed to Reach for the Stars

By Devan Kallig, Lambda Delta '11



Brothers like to dress up a little while eating or serving crab

As a brand new chapter, we are determined to be an active force in driving positive changes on our campus and in our community. In pursuit of this goal, we hosted our largest event ever on Saturday, February 9. The primary purpose of the Benefit Crab Feed and Silent Auction was to promote and aid the *Prep USA – Reach for the Stars Academy* here in Stockton, California. Here is an excerpt from the event program:

The *Prep USA – Reach for the Stars Academy* is a groundbreaking new program at the University that prepares promising young students for careers in STEM-related fields (Science, Technology, Engineering, and Math). We feel this program is an excellent vehicle for reaching out to the Stockton community to bring about positive change in the city. As engineering and computer science students ourselves, we feel honored to help young students see the opportunity that a technical education can offer, and assist in bringing them the information they need to make informed decisions about their future.

For the event, we pre-sold all tickets: singles, 8-person tables, and tables with wine. The dinner consisted of all-you-can-eat crab, pasta, and salad and was hosted in the largest room on campus, the University

Center Ballroom. Tables sold with wine received 2 drink tickets per person which they could trade for a glass of wine from a collection of bottles donated to the chapter for the event.

The evening was an amazing success. In total, we sold 117 tickets and raised over \$1900 to divide between a donation to the *Prep USA – Reach for the Stars Academy* and support for our own community service projects and open professional development events. Over 30 brothers helped serve, welcome and entertain guests, prepare food and manage the silent auction. The all-student band played smooth jazz all night and was critical to the success of the event.

By supporting a well-known program, we were able to produce an incredible amount of campus and community support. The silent auction consisted of donations ranging from the San Francisco 49ers to the university rowing team and private donors. Our sales base was also formed by university organizations, with private purchases building upon that sound foundation. In the future, we plan to use that strong base to spread the word about our organization and our commitment to community service and philanthropy.



Photos clockwise from left: The silent auction table alone raised over \$100. The hosts for the evening, Brothers Devon Kelling & Kirstin Kita. Guests enjoying the cash dinner. Photo: Angie Chung

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# Nu Delta Installation

by Christian Riley, Report, Nu Delta '14

On September 15, 2012, the culmination of years of effort resulted in the installation of the Nu Delta Chapter of Theta Tau. Now, with an impressive 47 members, a small colony of less than 20 individuals has grown into a modern, efficient, and diverse chapter of this professional organization. Located at the University of Pittsburgh, the Nu Delta Chapter has hosted numerous events centered about the concepts of brotherhood, service, and most importantly, professionalism.

Starting with brotherhood, we've set up weekly volleyball scrimmages to promote healthy lifestyles, as well as deepening existing friendships through teamwork. We've also held several game nights that allow brothers to play various board and card games and interact with one another. Teams for each game are decided randomly, which helps familiarize everyone with one another. Additionally, we recently began holding semi-annual retreats that encourage us to work together to accomplish a common goal and relate to one another on a personal level, and we've been in the process of coordinating social events that involve trips to the local zoo, museums, and galleries located in the Pittsburgh area.

Service has been an integral part of our chapter from the very start. Having so many individuals that have been affected by cancer both directly and indirectly, we have been in the top two contributing teams to the annual Relay for Life fundraiser at the University of Pittsburgh. We believe that in giving back to others, the individual giving his or her time and effort benefits just as much as the receiver. We also believe in giving back to various demographics in order to encourage diversity in our brothers. In the past, these events have



National officers and Nu Delta Chapter members.

included cleaning up local neighborhoods during the annual Pitt Make A Difference Day, packaging education material for children, remodeling housing for the poor, and even landscaping to beautify local areas.

Every year, we increase the number of professional development events available to our members and the general student body. Traditionally, we hold a minimum of two money management seminars, a series of mock interviews, and at least a couple professional development workshops. The professional development workshops have included a first impressions tutorial where individuals learned how to present themselves confidently and effectively, as well as an event

that coached students on public speaking techniques and strategies. We're also planning on organizing a facility tour in the near future in order to expose more undergraduate students to the field.

While we've made an impact here at the University of Pittsburgh, we've only just begun to establish a legacy. We're looking forward to all of the opportunities and additional growth we expect in years to come. As always, we'd like to thank the national officers that made all of this possible; we look forward to working and prospering with the fraternity at large.

## Xi Delta Installation

By Ryan McCurdy, Vice Regent, Xi Delta '11

The installation of Xi Delta Chapter at George Mason University went off without a hitch on October 6, 2012. Many were in attendance from all over the Eastern seaboard, from Cornell and Pitt all the way down to Alabama. One hundred and twelve people attended the ceremony for the installation of 31 charter members and a second installation of 15, for a total of 46 brothers. Notable speakers included Linda Kovac, Director of Corporate Relations for George Mason's Engineering School, Sheel Patel (Xi Delta '11), and Reed Hopwood (Xi Delta '12) who gave his speech remotely while he was in Greece.

Xi Delta Chapter is on the fast track for success. With strong ties in the community

and George Mason's engineering school, recruitment events with as many as 50 participants, and a current pledge class of 16

potential new members, the sky seems to be the limit.



Xi Delta Chapter members

## Omicron Delta Installation

By Emily LeMasters, Omicron Delta '14

The Omicron Delta Chapter of Theta Tau was installed on February 9, 2013 at Rutgers University in New Brunswick, New Jersey. Approximately forty brothers from the former colony, including alumni, gathered for the ceremony and celebration.

Exhilaration was evident as a long-lasting dream finally came true.

A colony of Theta Tau was first established at Rutgers with the dedication of eleven brothers, and the excitement of a professional,

engineering fraternity open to men and women on campus quickly caught on. We began to grow and prosper, creating quite a name for ourselves in the School of Engineering. As a chapter, we plan to grow into a flourishing fraternity with an everlasting bond.

Omicron Delta Chapter would like to thank all of those who attended the installation, especially the brothers from other chapters who braved the massive snowstorm that shut down three NYC airports. We would also like to thank all of those who made this special day possible, including the Theta Tau national officers and our very own alumni. We look forward to beginning our journey as a proud chapter of Theta Tau.

Omicron Delta Chapter members





# Miami University Colony Certification

By Ryan Callen, Miami University Colony '16

Since our certification on January 26, 2013, the members of the Miami University Colony of Theta Tau have been working diligently to establish ourselves as an influential organization – both within Miami University and the community of Oxford, OH. Prior to our colonization, Mu Theta Tau, our local fraternity, was already quite active in Miami University's engineering community, participating in Bridge the Gap, a design project hosted by the Miami Engineering Council, sponsoring an internship information session, and beginning our recruitment process for new members. After welcoming our first official pledge class on February 15, 2013, the Miami University Colony of Theta Tau was able to expand to 35 members – adding 17 new pledges of varying classes and disciplines of engineering.

After a successful showcase at Miami University's E-week open house, the Miami University Colony of Theta Tau is moving

forward in our process of becoming an official chapter of Theta Tau. Currently we are finalizing plans for a STEM outreach program at a local middle school, where we hope to share the power of engineering with the community's youth. We are also working closely with non-profit organizations such as Feed my Starving Children and Habitat for Humanity in order to develop opportunities for local and national community service. The Miami University Colony of Theta Tau is also looking forward to our upcoming fundraiser opportunities: the Miami University Relay for Life, a charitable event for the American Cancer Society, and a March Madness bracket fundraiser.

Along with our plans for community and charity services, the Miami University Colony of Theta Tau is also looking forward to expanding socially. Recently members attended a Theta Tau formal hosted by Iota Gamma Chapter at the University of



Miami University Colony members

Cincinnati. In addition, the colony is currently in the process of drafting and registering an intramural Ultimate Frisbee team to compete with the student body of Miami University.

The Miami University Colony of Theta Tau is honored to be a part of Theta Tau and prepared to make our first year one of professionalism and proficiency.

## Design Competition Winners

By Danny Radzwicki, Miami University Colony '11

On November 17, the Miami Engineering Council held a design competition for all majors. The competition's task was to build a bridge using a variety of papers and types of tape that could support a range of weights. The materials were distributed, and each material cost a certain amount of virtual money. The goal was to have the best weight support to cost ratio, which stressed efficiency; engineers today need to be as efficient as possible, so it was a great way to practice what is taught in class.

In the end, a group of four members of the Miami University Colony of Theta Tau won the grand prize. Their design was able to hold all the weight the judges had and only used \$11 worth of material. This ratio was two times that of the team that placed second, making it a landslide victory.



Top photo: Winners of the Miami Engineering Council "Bridge the Gap" design competition (from left to right): Danielle, Dan, Joey, and Andrew. Bottom photo: Danielle, Dan, Joey, and Andrew working together to build a bridge out of the provided supplies.

A photograph of three students standing on a stone path on a mountain. In the background, the Great Wall of China winds across a lush, green mountain range under a clear sky. The students are dressed in casual outdoor attire, including blue t-shirts and shorts, and are carrying backpacks. The overall scene is bright and scenic, suggesting an outdoor adventure or study abroad program.

# 2012 International Research Experience for Students Program Sponsored by

*by Dante O'Hara, University of California,  
Riverside Colony '14*

# Research Experiences by NSF



**BEIJING, CN. (July 5, 2012)** – Preparing for the biggest culture shock of my life by traveling overseas to the People's Republic of China to participate in a two-month international research for undergraduate student's program with four other engineering students from my university.

Once I arrived at Beijing Capital International Airport, my first experience of China was getting a huge blast of the humidity; I began sweating right as I left the plane. After a small struggle to find my way out of customs and dragging my luggage around with my team, we were reunited with our program's principal investigator, Dr. Albert Wang, and we were quickly on our way to get settled into one of the world's most illustrious higher education institutions, Tsinghua University. We packed our luggage into a small bus and took about an hour drive to Wudaokou with our fellow Chinese host-student Zhexin Ren. We noticed many different sightings on the way, such as over-crowdedness, a large amount of trees, and pollution (which could easily be mistaken as fog).

While settling into our new foreign student apartments at Tsinghua, we had to adjust to the new environment, and it was somewhat difficult because only one of the members on my team knew how to speak Chinese. My team and I bought meal cards that were used for the campus dining halls and transportation cards that were used for the subway and bus to travel throughout Beijing; we also rented bicycles to travel throughout the university since it was about fifteen times larger than the size of UC Riverside.

The dining halls served meals such as soup, noodles, dumplings, and rice. For the majority of the food, I honestly did not know the name—it just looked good so I pointed at it and put it on my plate to eat. When my team and I explored the area around the campus, we checked out the well-known western restaurants, such as KFC and Pizza Hut. The prices were in the same area as the US, so if we wanted to save money we would usually eat at a local Chinese restaurant. We also fell in love with a local western restaurant called "La Bamba" that sold foods such as hamburgers, French fries, and nachos. Many foreigners would be here even though it was quite expensive, but it was fun to eat and watch the 2012 Summer Olympics in London. The restaurant also had a strong crowd during the night, where they had an underground nightclub; I surprisingly met some students from London and New Jersey and also met up with a few of my friends that were studying abroad in Beijing at Peking University right next door.

During our first month of activities in Beijing, we were quickly exposed to the tourism attractions. We explored Tiananmen Square, which is the large city square in the center of Beijing that is known for many significant events in Chinese history. Located to its north is the Forbidden City, which served as the home of emperors and their households and was also the ceremonial and political center of the imperial Chinese

government. We luckily found an English tour guide who explained the palace in a very explicit way, including the treatment of concubines and the prolonged life of certain emperors. Near Tiananmen Square, we visited the National Museum of China that held many fascinating ancient Chinese artifacts ranging from silk paintings to jade carvings and even to old Chinese currency. We also explored the Summer Palace where emperors would take their concubines and stay during the summer months; during this trip we were able to rent manual boats where we could paddle out into Kunming Lake and enjoy the view of the whole palace and its surroundings. Towards the end of our stay in Beijing, we explored the Badaling Great Wall. This is the longest segment of the Great Wall that has been restored for tourists, and it used fire towers to indicate when invaders attacked. We took a lift up to the fourth fire tower and climbed all the way to the last (tenth) fire tower. The sights were unbelievable, and it was definitely a once in a lifetime experience to have the chance to walk amongst one of the most recognized monuments in the entire world.

Shopping was definitely a big part of Beijing. Since this was my first international travel, I wanted to bring back many souvenirs for friends and family back home in the US. My team and I explored many shopping districts, and one thing we learned was to bargain for better prices. The US dollar is worth a lot in China, so my team and I had a lot of Chinese Yuan with the 4,000.00 USD grants we were given by the National Science Foundation for our international activities. During these shopping experiences, many in random alleyways, shops had a lot of traditional Chinese merchandise that I wanted to buy and bring home. I was able to purchase a Jade bracelet for my mother, several house decorations which signified good luck and longevity in Chinese, and traditional Chinese clothing for my niece, oldest brother and other good friends back in California. I ended up spending a little over two hundred US dollars. There were also many street vendors that sold food in these alleyways, and they sold basically everything on a kabob-rangin' from scorpion to lamb to chicken.

In the midst of our cultural activities, my team and I had also come to China for academic experiences. We attended seminars at Tsinghua University held by respected professors such as Dr. Georgios Giannakis of the University of Minnesota and Dr. Cary Y. Yang of Santa Clara

University and learned of their respective research topics in wireless cognitive radio networks and nanotechnology. Prior to our departure to China, we participated in a technical orientation held by Associate Adjunct Professor Dr. Gang Chen where we were exposed to research in the UC-Light Visual Communications Laboratory and given demonstrations and examples on short distance LED communication using RS 232 protocol. With that being said, my team and I also



*First Flight Dinner at Quon In De Roasted Duck in Beijing, CN.*

participated in our own research under the topic of Visible Light Communication (VLC) at Tsinghua University held in the Optical Wireless Information Systems Laboratory in the Department of Electronic Engineering. We were given demonstrations by our host students who worked in the lab where they showed us VLC positioning; they would hook a receiver to a laptop and place it on a cart where the screen would display a map of the building and the cart's current position as a star

on the map. With the tasks that we were given, we were able to determine which of the two modulation methods would have a lower bit error rate (BER) for VLC by running a MATLAB simulation comparing the BER of on-off keying (OOK) and pulse position modulation (PPM) and were also able to participate in some relevant hands-on experience by assembling and soldering a simple amplifier circuit that was used to amplify the signal emitted from a field programmable array (FPGA) board.

**TIANJIN, CN. (August 2, 2012)** – Awaiting the second phase of our IRES program at Tianjin University, we had to check out of our student apartments at Tsinghua, pack into a small van to get to the subway station near Peking University, and take a one-hour subway ride to the train station for a thirty-minute train ride to Tianjin. Upon arrival at Tianjin University, we got the keys to our new foreign student apartments, dropped our luggage, and met with our new host students to have a welcome dinner and learn of our upcoming activities for the month of August.

During our first exposure of activities in Tianjin, we realized that the atmosphere and culture was much different from Beijing. Tianjin was

much closer to the ocean, so the air was much more clear, and the city was also more commercialized than Beijing due to its history of dominance by foreign countries. We visited a few historical locations in Tianjin including the house of the last emperor of China, Puyi, where he was exiled in Japanese concession when he was pulled from his throne by the warlords during the end of imperial China in the early 1900s. We also stayed overnight on Mt. Panshan and were able to hike the mountain that was extremely high; we saw many of the Chinese Buddhist sculptures and the temples that held them. During our stay at Mt. Panshan we were able to travel to the Huangyaguan Great Wall, which was the defending unit of the Great Wall that is rare to be seen by many foreigners. Surprisingly, it seemed as if we were the only individuals climbing the Great Wall along with a few other natives, and we were able to enjoy the scenery without many visitors like in Beijing.

Our technical activities in Tianjin varied greatly from Tsinghua University. Surprisingly, my team members and I were all given separate projects based on our strengths and majors. I luckily was given a project where I was able to use AutoCAD to design a heat sink for a system that will cool electronic components that the graduate students needed for their research project on RF transceivers. The other students on my team worked with Advanced Design System (ADS) where they designed an RF transceiver that operates from Bluetooth frequencies to 2.4 GHz. We were fortunate enough to be working with the graduate students under the Dean of the School of Electronic Information Engineering since he held a good relationship with our principal investigator. While meeting the Dean, he gave us a brief history of the university stating that it is the oldest higher education institution in mainland China and that it is very proud of its achievements in the disciplines of engineering. Also during our stay in Tianjin, the China Office NSF Director, Dr. Emily Ashworth, visited us at our lab, and we held a presentation regarding all of our current activities in China. Our professor told of his past experiences with the program and how he hoped to continue the program and have it grow within the next few years.

For closing remarks, I would like to acknowledge the National Science Foundation and my principal investigator, Dr. Albert Wang, of the University of California, Riverside for allowing me to participate in this program. This was definitely a once in a lifetime opportunity to travel across the Pacific to the People's Republic of China, and I honestly learned a lot from the experience. Adjustment to a culture much different than my own was definitely a feat to overcome, but with the assistance of our Chinese host students, my team and I were able to overcome cultural differences and create an environment where students from different backgrounds can communicate with each other and more knowingly relate to one another.



*From top to bottom: Dante O'Hara in the lab working on aluminum Heat Sink design on AutoCAD 2011 at Tianjin University. Prof. Albert Wang, Prof. Jijunqin MA, Dean, Dante O'Hara, Dr. Emily Young Ashworth - Lunch after IRES 2012 Presentation in Tianjin, CN. Outside of the School of Electronic Information Engineering after IRES 2012 Presentation at Tianjin University. Photo: Joseph Menke*

## Papal Update

by Michael Abraham, Epikou Beta '92,  
Executive Director



The Roman Catholic Church recently elected a new Pope, but this article has nothing to do with that.

Many of you know that Robert E. Pope, Zeta '52, who served Theta Tau loyally for over 30 years as Executive Director, has had a number of health-related challenges in recent years. Even Bob has at times had difficulty maintaining his well-known sunny disposition.

Fortunately, he is on the mend and his sunny self once again. Bob reports that he expects to remain for just one more month in a rehabilitation facility in metropolitan St. Louis before returning to his home in Creve Coeur.

Bob always enjoys and appreciates hearing from Theta Tau members. Thanks to all those who have extended him good wishes and kept him in your prayers. A special thanks to Past Grand Regent George Dodd, Zeta '60, who has coordinated and organized special gifts for Bob and worked hard to keep a number of us informed about his status.

## BY THE NUMBERS UPDATE

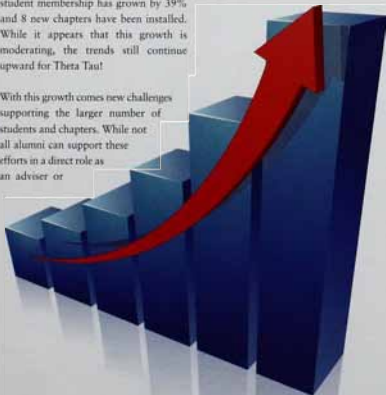
by Michael Abraham, Epikou Beta '92,  
Executive Director

In the Spring 2012 issue of *The Gear*, I provided a twenty-five year snapshot of Theta Tau's growth from 1986-2011. While those statistics showed consistent and accelerating growth, the last two years have made those previous years pale in comparison. Thank you for making this growth possible.

In just the last two years, the Fraternity's student membership has grown by 39% and 8 new chapters have been installed. While it appears that this growth is moderating, the trends still continue upward for Theta Tau!

With this growth comes new challenges supporting the larger number of students and chapters. While not all alumni can support these efforts in a direct role as an adviser or

other volunteer, you can positively affect our student members through a donation to the Educational Foundation whose programs support our students. Any amount you give will help. Please donate today by visiting [www.wepay.com/donations/theta-tau-educational-foundation](http://www.wepay.com/donations/theta-tau-educational-foundation) or the Foundation's donation page from [www.thetatau.org](http://www.thetatau.org).





*Stony Brook University Colony members*

## LATE-BREAKING EXPANSION NEWS!

Theta Tau's newest colony was certified March 23rd at Stony Brook University on Long Island. Twelve founding members were initiated into the group that day. The colony joins Omega Beta Chapter at Hofstra University already on Long Island, and they join Mu Gamma Chapter at Buffalo and Nu Gamma Chapter at Binghamton as Theta Tau's third chapter in the SUNY system. Grand Regent **Brandon Satterwhite**, Mu '98, presided over the ceremony with several other national officers that day.

Our thanks to those additional members from Omega Beta, Nu Gamma, and

Omicron Delta who travelled to Stony Brook to support the new colony.

Founded in 1957, Stony Brook University has a 1,039-acre campus on the north shore of Long Island—encompassing the main academic areas, an 8,300-seat stadium and sports complex and Stony Brook Medicine.

In mid-April, Theta Tau installed its newest chapter at UC Irvine and its newest colony at UCLA. Look for a full report on these events in the next issue of *The Gear*.



*Grand Regent Brandon Satterwhite and colony Regent Ali Islam holding Stony Brook University Colony's certificate.*

# LITTLE ROCK LUNCHEON



Executive Director Michael Abraham presented Buzz Arnold, Upsilon '65, (center) with the Alumni Hall of Fame plaque at a lunch with Upsilon Chapter alumni.

Eight Upsilon alumni enjoyed fellowship and lunch on April 2 at the Pleasant Valley Country Club in Little Rock. Thanks to Gus Vratsinas, Upsilon '67, for organizing the outing. Apart from swapping old stories about the UA, life, and grandkids, folks discussed the status and suitability of the Upsilon Chapter house as the chapter has grown in recent years. From just 8 remaining

members a few years ago, it is now approaching 50 student members. With the University of Arkansas and especially UA's College of Engineering growing by leaps and bounds, the chapter is expected to remain at a highly successful level (which most Theta Tau chapters are also experiencing on their campuses). At the close of the meal, Executive Director Michael Abraham presented Buzz

Arnold, Upsilon '65, (pictured center) with the Alumni Hall of Fame plaque symbolizing his induction. After obtaining his undergraduate engineering degree at UA, Brother Arnold furthered his education in the field of law. He spent a "lifetime judging, but not a lot of time lawyering" culminating in his appointment to the United States Court of Appeals for the Eighth Circuit.

## Rutledge Named Arkansas Trustee

Reymie Rutledge, Upsilon '72, was appointed to the Board of Trustees of the University of Arkansas by Governor Mike Beebe.

A native of Searcy, Arkansas, Brother Rutledge earned undergraduate and masters degrees from the University of Arkansas. He is Chairman and CEO of First Security Bank. He also serves on the Walton College of Business Executive Advisory Board and the

University of Arkansas Medical Sciences Foundation Board.

He will fill the remainder of a 10-year term on the board that was originally held by John Tyson. The term expires in 2017. Brother Rutledge's wife Ann and his three sons John, Adam and Nathan are all graduates of the University of Arkansas.





# Theta Tau announces WEBSITE LAUNCH!

We are proud to announce that Theta Tau's new website launches April 15. The new site was designed primarily by Grootp. Several Cal Berkeley fraternity brothers created Grootp (formerly WebGreek) in 2010. Grootp has worked with a number of greek organizations (locally and nationally) in web design, but also in the larger area of cloud-based communication tools and services (providing an all-in-one-place stop for chapters).

Our thanks to the alumni serving on the Web Committee who investigated options, summarized our needs for a new website, and assisted in creating and placing content for the site.

We apologize for any inconvenience the website change may have caused you. The Central Office sent notice of the pending change on March 16 via email. In considering the change and evaluating options, technological developments, societal online trends and behaviors, costs associated with web-based innovations and products, etc. presented our Fraternity with a number of options. It is our hope that we have correctly evaluated those options while keeping in mind the needs and expectations of our students, alumni, chapters, and other stakeholders.

In conjunction with this change, we have also moved the Theta Tau Online Store and the Educational Foundation donation site to WePay. You can link to our WePay sites from the website at [www.thetatatau.org](http://www.thetatatau.org).

Please visit the new site and be on the lookout for new features and conveniences that it provides.

Theta Tau  
PROFESSIONAL ENGINEERING FRATERNITY  
THE NATION'S FOREMOST FRATERNITY FOR ENGINEERS

Home About Contact Us Programs Events & News Chapters

SLIDE CAPTION

### Theta Tau

Professional Engineering Fraternity

Theta Tau is the nation's foremost fraternity for engineers.

Welcome to the official website of Theta Tau Professional Engineering Fraternity and the Theta Tau Educational Foundation!

From its start by four young engineering students, 100 years ago, Theta Tau has become the oldest and largest Fraternity for Engineers, with chapters across the country, and members around the world. Our mission is to develop Engineering Leaders for Service, Profession, and Brotherhood.

The Fellowship, academic success and personal growth our Fraternity find at Theta Tau make us the difference in their personal and professional success. In 2012, more than 3000 young leaders benefited from the unparalleled value of the Theta Tau experience. We call it the **Theta Tau Difference.**

Whether you are a student, parent, student, or alumnus, we invite you all to join here to explore our website. Please contact us if we can be of assistance to you.

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# FOCUSING ON PRACTICAL APPLICATIONS OF ENGINEERING

by Alexa Bannett, Gamma Beta '15



As engineers, we are tasked with finding the solutions to challenges of today and tomorrow. Through Theta Tau, brothers develop skills to work in a professional environment, to connect with their local communities, and to build strong brotherhood bonds. However, upon examining the structure of our fraternity, we realized that a certain aspect of the undergraduate engineering experience lacked attention. Arguably, engineering students seek the most challenging courses, problem sets, and

questions to tackle—the motivation behind this stems from an insatiable curiosity into the real world application of their skill set.

The formation of the Practical Applications committee represents a step towards engaging students with the environment they will join upon graduation. Where professional development seeks to unite students with future employers, professional tools, and tips of the trade, Practical Applications strives to unite students with future challenges,

questions of policy, and looks toward the future of each engineering discipline.

The first event we hosted was “The Future of the Final Frontier,” an intimate look into the policy behind spaceflight, as well as the engineering challenges that the final frontier presents. This panel of experts included the Director of the Space Policy Institute of the Elliott School of International Affairs here at George Washington University, the NASA Deputy Associate Administrator for

Exploration Systems Development, and the Executive Director of the Commercial Spaceflight Federation. The Dean of the Engineering School moderated the two hour panel that consisted of a list of prepared questions for the panelists, as well as an open Q&A session at the end. Once the panel concluded, there was a brief reception in which the students had the opportunity to interact with the speakers one-on-one.

Following the success of the first panel, we held another on data security. This discussion was more of a technical debate between computer scientists, representatives from government security agencies, and instructors at the National Defense University. We saw an influx of students from outside of the

engineering school demonstrating what data security means to every person in the digital world, even those who are not engineers.

As the second semester of Practical Applications progresses, we anticipate expanding our repertoire of events in an effort to broaden our reach across the George Washington University community. Some of our upcoming events include a panel discussion on the energy crisis, a series of soldering workshops designed to create useful projects, and a dinner with a lecture series featuring researching professors. We are continuing to improve upon the committee by learning from our successes and failures. We hope to encourage other Theta Tau chapters to consider adding a Practical Applications Committee as a new layer of

professional development for young engineers and to bring attention to the importance of engineering to others.

The multi-faceted world that graduating engineers enter requires a different kind of preparation. By providing students with personal connections to the challenges they will face, as well as an interactive environment to discuss solutions, the Practical Applications Committee adds a new dimension to our chapter. As we look towards our future careers with curiosity and an insatiable desire to become contributing problem-solvers, Practical Applications helps foster a forum of debate and engagement both inside and outside of the engineering community.

## THETA TAU – AFFINITY CARD

We are disappointed to report that Bank America has decided to end our affinity credit card program, effective May 31, 2013. We wish to thank all those who have loyally used their Theta Tau-related VISA, MasterCard, or American Express cards over the years. Doing so provided a limited, but important, stream of additional income to support Theta Tau's educational programs for over two decades.

Started in 1990 with 1st Tennessee Bank, the Theta Tau VISA provided superior benefits and perks to our members. In later years, MasterCard and American Express products were added to the Theta Tau portfolio. 1st Tennessee bank sold their affinity card business to Coverdell, which later sold it to MBNA. MBNA possessed a massive percentage of the credit card issuing market. MBNA was bought in its entirety by Bank America in 2005 making Bank America the world's largest issuer of credit cards. As a



result, the bank expects to have your business, via some credit card product, whether or not they continue to offer a Theta Tau affinity card

to our members. Bank America has ended similar programs with other greek letter organizations.

Due to federal regulations (IRS and US Postal Service) related to affinity programs for nonprofit organizations, Theta Tau was required by law and contract to depend on the card issuer to market the card. Over the years, such marketing and promotion decreased to almost nothing. As importantly, the proliferation of other credit card perks, privileges, and benefits eventually made the Theta Tau card no better than most others that are available to our members. The annual revenue from the credit card affinity program was less than that which Theta Tau receives from an average-sized chapter today. Fortunately, continued growth in the number of Theta Tau chapters and student members will more than make up for this loss.

Bank America will continue to honor your credit card until its expiration date; however, Theta Tau will **not** receive any revenue from your use of it after this May. Upon renewal, a new card without our name or logo will be issued to you. Naturally, you may cancel your card any time that you may wish to do so. Our thanks once again to those that have loyally used their Theta Tau credit cards over the years; unfortunately, your use of it no longer benefits our Fraternity.



# Theta Tau ENGINEERING COMPETITION

*Emeritiana Nolasco,  
Corresponding Secretary,  
Mu Delta '14*

December 1, 2012, marked the day of the second annual Theta Tau Engineering Competition at the University of California, Merced. Rubie Goldberg Chairperson Heidi Stead, Mu Delta '13, and her committee were in charge of orchestrating the competition. The purpose of the competition is to get high school students excited about engineering, and this year the competition was opened to include college students to promote interaction between high school and college students.

Theta Tau Engineering Competition teams were composed of two people and given one piece of balsa wood, 100 popsicles sticks, and wood glue a week before the competition to prepare.

Teams were given a 1/8" x 4" x 36" piece of balsa wood to make a glider. The constraints were that it had to have a hook that could attach to the launching apparatus and could only be created out of the given balsa wood and wood glue. Given the dimensions of the wood, it could only provide the construction of one glider.

Egg drop teams were given 15 minutes to design and build an apparatus from the given materials that, in theory, would drop the egg safely to ground level from three stories high.

The next event was "Penny Boats" in which each team was given a 12" x 12" piece of aluminum. The winning team utilized a rice cooker



*(Left to right) Forrest Yeh (2016), Trevor Mardock (2014), and Kevin Crump (2014) test out their Balsa wood wings. Winning bridge built by team "Max Powers". Participants of Theta Tau Engineering Competition.*

pot as the mold for their boat; rice cooker pots aren't flat on the bottom, which creates an area to allow a large air bubble to stay, as well as an 8-inch wall so the boat could sink a little before water got in. With the air bubble in place, the team was able to get over \$3 worth of pennies in their boat!

With only 100 Popsicle sticks, each team created a bridge that was to hold a large quantity in weight. The weight, added in units of 16 mL water bottles, was able to take down a magnitude of bridges. Two bridges came out victors holding more than 2 cases of water bottles! The overall winners of the event were the competitors with the lightest bridge.

Winners of each event were given \$15 gift cards to different restaurants.

## Promoting Engineering Interest in Central Florida

*by Samantha Riccio, Rho Gamma '15*

The brothers of the Rho Gamma Chapter at the University of Central Florida have focused on establishing and supporting outreach initiatives that coincide with Theta Tau's purpose, values, and goals, and one such event is Engineering Interest, a community service program that promotes curiosity in the engineering discipline in middle and high school students. To accomplish this, Engineering Interest showcases senior design projects from various disciplines, hosts industry and university speakers, and holds a catapult design competition that challenges students' critical thinking and presentation skills.

With financial and volunteer support from the Rho Gamma Chapter, over 85 students and parents from local middle and high schools attended Engineering Interest on December 8, 2012. The day's events included senior design projects sponsored by local engineering firms, guest speakers from Lockheed Martin Missiles and Fire Control and the UCF's College of Engineering and Computer Science, and a catapult design competition consisting of a judge panel of experienced engineers.

Never allowing the momentum to go to waste, the brothers are already making strides in expanding the reach of Engineering Interest by targeting more schools, hosting a greater variety senior design projects, and creating more relatable and engaging engineering demonstrations. The Rho Gamma Chapter is dedicated to continuing this outreach event for years to come, and by developing a high standard of professional interest in engineering among the surrounding community, the Rho Gamma Chapter will develop great engineers and great brothers.

# In Memoriam

## ALPHA

University of Minnesota  
Richard Cairn Angvall  
Class of 1950, Roll No. 572

## BETA

Michigan Technological University  
William Lawson Adams  
Class of 1954, Roll No. 720  
William Charles Ferguson  
Class of 1961, Roll No. 836  
Paul Victor Martin  
Class of 1940, Roll No. 432  
Martin Lawrence O'Toole  
Class of 1953, Roll No. 710  
Albert Joseph Pepin  
Class of 1932, Roll No. 330

## GAMMA

Colorado School of Mines  
Robert Edward McMinn  
Class of 1949, Roll No. 699

## DELTA

Case Western Reserve University  
Chester Thomas Kermode  
Class of 1951, Roll No. 743  
Fred Joseph Prince  
Class of 1945, Roll No. 542

## EPSILON

University of California, Berkeley  
Garms H. Curtis  
Class of 1948, Roll No. 573  
Frank George Sieraski  
Class of 1958, Roll No. 816

## ZETA

University of Kansas  
Philip David Humphrey  
Class of 1973, Roll No. 728

## THETA

Columbia University  
William Gebrian  
Class of 1950, Roll No. 470  
Voptech Frank Muska  
Class of 1944, Roll No. 369

Robert Anthony Prochazka  
Class of 1948, Roll No. 429

## IOTA

University of Missouri at Rolla  
Matthew J Kerper  
Class of 1943, Roll No. 468  
John Charles Minton  
Class of 1964, Roll No. 928  
Harold Rueff  
Class of 1942, Roll No. 412  
Richard Ernest Zumsteg  
Class of 1951, Roll No. 641

## LAMBDA

University of Utah  
Sterling C. Barton  
Class of 1947, Roll No. 554

## MU

University of Alabama  
Paul Comisarow  
Class of 1944, Roll No. 357  
Victor Stanley Musick  
Class of 1948, Roll No. 461  
John Milton Troha  
Class of 1965, Roll No. 825

## XI

University of Wisconsin  
Fred Barthesheier  
Class of 1954, Roll No. 158  
Dennis Marvin Mitchell  
Class of 1969, Roll No. 314  
Richard Joseph Slika  
Class of 1951, Roll No. 124

## OMICRON

University of Iowa  
Bert Clarence Blakesley  
Class of 1942, Roll No. 256  
William Earl Erickson  
Class of 1951, Roll No. 384  
Donald Wendell French  
Class of 1959, Roll No. 544  
George Leslie Sodemann  
Class of 1950, Roll No. 363  
Gorman Gayl Tutsch  
Class of 1952, Roll No. 414

## PJ

University of Virginia  
James Vincent Bitner  
Class of 1941, Roll No. 236

## RHO

North Carolina State University at Raleigh  
John Reynolds Arwood  
Class of 1956, Roll No. 542  
Thomas Harvey Blount  
Class of 1940, Roll No. 228  
Lonnie Avery Grant  
Class of 1956, Roll No. 491  
Merlin Adams Meares  
Class of 1947, Roll No. 316  
Leonard Rubin  
Class of 1953, Roll No. 464  
Herman Eugene Seibel  
Class of 1950, Roll No. 423  
Robert Walter Smithwick  
Class of 1946, Roll No. 291  
Stevie Mike Yionoulis  
Class of 1959, Roll No. 586

## SIGMA

The Ohio State University  
Jay Philip Mitchell  
Class of 1953, Roll No. 382  
Edward Paul Priebe  
Class of 1953, Roll No. 367

## TAU

Syracuse University  
Harold T. Culver  
Class of 1945, Roll No. 308  
William Frederick Dalheim  
Class of 1943, Roll No. 273

## UPSILON

University of Arkansas  
Randle Audrey Yarberry  
Class of 1941, Roll No. 167

## CHI

University of Arizona  
Arthur Elliott Himebaugh  
Class of 1950, Roll No. 351  
James Norris Warkowski  
Class of 1955, Roll No. 470

Robert Louis Watson  
Class of 1983, Roll No. 866

OMEGA  
South Dakota School of Mines & Technology  
William Rearick Benn  
Class of 1944, Roll No. 199  
Charles David James  
Class of 1951, Roll No. 318

Edward McKensley  
Class of 1956, Roll No. 409  
Lennis Fred Shtafreck  
Class of 1951, Roll No. 346

GAMMA BETA  
The George Washington University  
Maxwell George Christopher  
Class of 1940, Roll No. 59

William Junior Frahm  
Class of 1949, Roll No. 222  
Edward Gardner Lippitt  
Class of 1949, Roll No. 223

IOTA BETA  
University of Detroit Mercy  
David Michael Golebiewski  
Class of 1972, Roll No. 117



## BETA WINTER

Much of the Midwest has "enjoyed" a snow-filled winter this year. That's not unusual for Houghton, MI, of course. Brother Chris Cena, Beta '13, snapped this shot after a recent snowfall.

## Theta Tau

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Austin, TX 78701

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## Presidential Run-In

During their post-official-visit coffee debrief, Brothers Ibrahim, Melvin, Braker, and Scott of Gamma Beta Chapter, and Brother Arndt, Atlantic regional director from Tau Gamma, took a picture with Senator John McCain.

(L-R) Adriano Arndt, Doug Melvin, Sen. McCain, Zaid Ibrahim, Alex Scott, Ian Braker