PI TAU SIGMA ANNUAL CHAPTER REPORT
2012-2013
Stevens Phi Omicron

A. Initiations

Stevens Institute of Technology follows a broad based engineering curriculum with a common core for the first three semesters and students are not required to declare their engineering major before their fourth semester. In addition, nearly a quarter of all engineering students complete 3 to 4 semesters before declaring their major.

In order to ensure that all initiates graduate as Mechanical Engineering majors, the chapter has established a policy to initiate only juniors (5th and 6th semesters) and seniors (in their 7th semester). Students who have excellent academic record (top sixth or 16.7% and who have a GPA of 3.65 or "High Honors") and who are in good standing are reviewed and invited to become members of the Stevens Phi Omicron Chapter.

During AY 2012-13, Stevens conducted two initiation ceremonies. The fall initiation ceremony for the Academic year was conducted on December 11, 2012 and 15 new members were initiated. The spring initiation ceremony was conducted on May 1, 2013 and 9 new members were initiated. The following is a listing of the AY 2012-13 initiates.

Fall 2012 Initiates:

Aramini, Gary
Benensky, Jason M.
Crean, Jared C.
Grudzinski, Kevin M.
Indoe, Melissa J.
Lanigan, John J. III
Sidorski, Christine M.
Wang, Jeremy
Ariante, Christopher L.
Compton, Mason T.
Giglia, Michael A.
Hart, Brandon J.
Joyal, Garrett T.
Mohd Yunus, Mohammad I.
Siembab, Mark A.

Spring 2013 Initiates:

DeFeo, Danielle M.
Kauffmann, Anthony
Lee, Christina M.
LoPiccolo, Angela M
Penna, Patrick A.
Gaugler, Richard A. III
Lau, Andrew Z.
Lee, Jonathan P.
Miskanich, Ryan J.

The chapter pays the dues for all the students who are initiated. In addition, the chapter also provides stoles at no cost to all graduating seniors, who are members of the chapter. Funds for all chapter activities and socials are provided by the Mechanical Engineering Department.

B. Chapter Activities

Goals for 2012-13

- Initiate Members from the Senior and Junior Class during 2012-13 academic year
- Participation in the ASME Region II student conference and in the design and oral presentation competitions
- Participation in the Annual Pi Tau Sigma conference, out-reach activities through the co-sponsorship of faculty-student activities
- Participation in the 2013 Research & Innovation and Engineering Design Day Events (jointly held on April 24, 2013).
- Promotion of entrepreneurship through involvement in the Stevens Research and Innovation program and other events associated with promoting Mechanical Engineering.
- Participation in community and outreach activities.

All goals for AY 2012-13 were met and the following is a brief summary of other chapter activities.

Activities

The chapter again successfully organized and implemented an academic tutoring program for the mechanical engineering undergraduate students during the fall and spring terms. The event covered all core engineering topics for the sophomore and junior class with a special review during the final exam period.

Several members of the Stevens Phi Omicron chapter of Pi Tau Sigma actively participated in both campus-wide and city-wide disaster relief activities associated with Super-storm Sandy during November 2013. On Feb. 15, 1013 Hoboken Mayor Honorable Dawn Zimmer joined the Founder's Day celebration to officially recognize the contributions of the Stevens community just a few months ago, when Super-storm Sandy struck the area and downed power lines, toppled trees, and flooded homes, businesses and streets. In her Founder's Day speech, Zimmer said the incredible contributions of these students – as well as many others – to the Hoboken volunteer effort were instrumental in the city overcoming unparalleled challenges to the safety and welfare of its residents. When the city was in dire need, these students put others before themselves. They were innovative in solving problems and efficient in coordinating the relief effort, profoundly impacting countless members of the community in the process.

Mayor Zimmer [far left] recognizing the core group of students for their effort during super-storm Sandy.

The Stevens Phi Omicron chapter again assisted the Mechanical Engineering Department with the open house for accepted students, which was hosted by Stevens on Sunday, April 21, 2013. In addition to volunteering their time for the various laboratory tours and for interactions with the students and parents several senior capstone design projects including the Formula SAE car, the Advanced Class SAE Cargo plane (which won an award for design presentation during the 2013 SAE Aero-West competition in Van Nuys, CA as well as at the ASME Regional

Competition.), and the mock-ups of the Combined-Cycle Power Generation Facility for Stevens, the Portable Solar Water Purification System, and the Micro-Robotic Spinal Surgery Tool.

The 2013Formula SAE Car from Stevens

Stevens celebrated the Research & Innovation accomplishments and the successful completion of the Engineering Capstone Design of its graduating class on April 24, 2013. The Stevens Phi Omicron chapter assisted the Mechanical Engineering Department with the set up for the event and the distribution of ASME literature. Various capstone design projects were on display and they included the following from the Pi Tau Sigma members.

- Advanced Class (Syeda Zehra) and Regular Class (Jason Benensky) SAE Cargo Planes
- Alternative Energy Harvesting in Housing Systems (Richard Wengenroth)
- Autonomous Surface Vehicle (Muhammad Abdul Hamid)
- Body Temperature Control Device (China Darin, John Lanigan)
- Combined Cycle Power Facility for Stevens (Philip Clark)
- Environmental Impact of Energy Reuse in Die Forging (Muhammad Yunis)
- Formula SAE Car (Alex Fidalgo, Peter Supernavage)
- Human Powered Submarine (Alex Pawlikowski, John Lanigan)
- Micro-Robotic Spinal Surgery Tool (Trevor Jaye)
- Perseus Project DHS (Thomas McMenamin)
- Photoelectric Energy Harvesting Device (Joseph Bastelli)
- Portable Solar Powered Water Purification System (Mason Compton, Mikelann Scerbo)
- Solar Decathlon Project (Patrick Meyer, Aaron Perelman)
- Unmanned Air System (Samantha Weisman)
- Versatile Piano Tuning System (Michael Hubner)

In addition, as part of social outreach, several members of the chapter again participated in the collection of food and clothing for the needy and the Hoboken shelter during the holiday period.

Mr. Philip Clark (chapter president) represented Stevens in the Pi Tau Sigma National conference at the Ohio State University, Columbus, Ohio (during February 22-24, 2013).

The chapter's web page (www.stevens.edu/pts) has been updated.

Graduates

Abdul Hamid, Muhammad Nabil
Benensky, Jason M.
Compton, Mason T.
Fidalgo, Alexandre F.
Jaye, Trevor T.
McMenamin, Thomas D.
Mohd Yunus, Muhammad Iqbal
Perelman, Aaron M.
Supernavage, Peter A.
Weisman, Samantha J.

Bastelli, Joseph M.
Clark, Philip A.
Darin, China
Hubner, Michael J.
Lanigan, John J., III
Meyer, Patrick
Pawlikowski, Alexander R.
Scerbo, Mikelann
Wengenroth, Richard J.

Awards & Recognition

Several of the Stevens Phi Omicron chapter members from the 2013 graduating class were recognized for their academic excellence and participation in various extra-curricular activities during the graduation.

The following chapter members of the graduating class were recognized for their academic excellence.

- **Richard Wegenroth** was the recipient of the *Eugene Fezandie Award* for best overall performance by a graduating senior in Mechanical Engineering in the sequence of junior and senior year Mechanical Engineering courses.
- **Richard Wegenroth** was also among a group of six recipients of the recently established *Farber Award* to create awareness among students of the impact their innovation can have on society at large and the power it has to improve lives all over the world.
- **Mason Compton** was the recipient of the *Andrew Carnegie Machine Systems Award* for being an outstanding student in Machine Systems and Design.
- **Aaron Perelman** received the *Arthur J. Grymes award* for demonstrating greatest interest and proficiency in fluid mechanics.
- **Trevor Jaye** was the recipient of the *Richard B. Cole Award* for demonstrating high academic performance, integrity, and personal dedication.
- **Trevor Jaye** was also a member of the design team that received the *Senior Design Project Award* for outstanding capstone design project in Mechanical Engineering.
- **Darin China and Samantha Weisman** were the recipients of the *Elie Fonrose Award* for his promise of advancement in the field of aerospace engineering.
- **Mikelann Scerbo** received the *Col. John Stevens Power and Energy Systems Award* for being the outstanding student of Power and Energy Systems.
- **Philip Clark** was the recipient of the *Fernando Sisto Award* for his outstanding performance in Turbomachinery and Aerospace.

Mikelann Scerbo was a co-recipient of the *Career Development Award—Personal Career Growth* for demonstrating a focused approach to professional development by identifying a career path and exploring careers relevant to academic studies and personal interests throughout her years at Stevens.

Joseph Bastelli, Mason Compton, Thomas McMenamin, Patrick Meyer, Aaron Perelman and Richard Wengenroth received both a Bachelors degree in Mechanical Engineering with High Honors as well as a Master of Engineering Degree.

The Stevens Office of Academic Entrepreneurship has recently established the *Elevator Pitch Award* and the *Project Plan Pitch Award* to exemplify academic entrepreneurship and to promote a concise and effective presentation of an idea or design concept to potential donors and funding groups. **Mason Compton, Trevor Jaye and Mikelann Scerbo** were among the recipients of the *Elevator Pitch Award*; while **Philip Clark** and **Aaron Perelman** were among the recipients of the *Project Plan Pitch Award*.

Many of the Stevens Pi Tau Sigma chapter graduating class of 2013 were also members of Tau Beta Pi, the Engineering Honor Society.

At the state level, **Darin China, Lindsay Crossan, Mikelann Scerbo, and Samantha Weisman** were selected from Stevens to receive the *NASA New Jersey Space Grant Fellowship* for their outstanding academic record. As part of this *state-wide* award they each participated in a research project of aerospace relevance and presented a research paper and poster at the state-wide *NASA New Jersey Space Grant* meeting (at Rutgers University) to highlight their work.

Jared Crean, was commended and recognized by the City of Hoboken as a member of the core group of six students from Stevens who took on the enormous challenge of coordinating hundreds of volunteers who reported to the City Hall during the recovery from Super-storm Sandy in hopes of assisting victims of the storm. Without electricity and with a total lack of supervision, these students assigned duties, managed projects, and even directly helped those in need by bringing water, food, batteries, blankets, medical prescriptions and other supplies to residents stranded in their homes.

Plans for 2013-2014

Our plans for the upcoming year consist of educational, social, and outreach activities. Among others, it will include participation in the Stevens Innovation and Entrepreneurship program, sponsorship of engineering seminars, co-sponsorship and participation in professional society student chapter activities, as well as the promotion and publicizing of the Mechanical Engineering program activities within Stevens.

In addition, the chapter plans to distribute the stoles and recognize the graduating seniors during the annual banquet.

Chapter Officers

President:	Philip A. Clark
Vice President:	Lindsay R. Crossan
Secretary-Treasurer:	Aaron M. Perelman
President Elect:	Lindsay R. Crossan
Vice President Elect:	Jeremy Wang
Secretary-Treasurer Elect:	Christina M. Lee

The elections for the chapter officers were held on May 1, 2013 following the initiation ceremony. The current group of officers explained the responsibilities and chapter activities to the officers-elect who will govern during the 2013-14 academic year. The chapter responsibilities were transferred during the last week of the term.

Chapter Advisor: Siva Thangam, Professor, Department of Mechanical Engineering**,** Stevens Institute of Technology, Castle Point on Hudson, Hoboken, NJ 07030 **(**sthangam@stevens.edu)

Chapter Website: www.stevens.edu/pts

Reporter: Siva Thangam