Pi Tau Sigma Annual Chapter Report

2014-2015

Texas A&M University at Qatar Beta Zeta

A. Initiations

The initiation process at TAMUQ Beta Zeta is more or less the same as it is for the main campus in College Station, Texas. First, the eligibility requirements as defined in the National Constitution are applied to the junior and senior Mechanical Engineering students through confirmation with the Office of Records, and a list of names is obtained for those who satisfy these requirements. These are summarized below, taken directly from the Beta Zeta Chapter Constitution 2014.

Article IV. Eligibility of New Members
Section 1: Requirements for Candidacy

(a) Candidates for membership shall be defined as in the National Constitution.

(b) No candidate shall be invited to pledge who has not been accepted into Upper Level, as determined by the Mechanical Engineering Department.

(c) No candidate shall be elected who has less than a 3.2 grade point ratio based upon Texas A&M University at Qatar grades alone.

(d) No undergraduate candidate shall be initiated who has not completed or is in MEEN 260 at the time of the banquet.

Section 2: Undergraduate candidates shall be classified in one of these categories:

(a) First Term Junior: 60-75 hours passed

(b) Last Term Junior: 76-94 hours passed

(c) First Term Senior: 95 or more hours passed and having at least one full semester remaining following the semester of candidacy

(d) Last Term Senior: not having one full semester remaining following the semester of candidacy. This is determined by graduation eligibility list published by the Mechanical Engineering Department

Section 3: Eligibility is based upon the student's Texas A&M University at Qatar grade point ratio. The student must possess a grade point ratio that places them in the top percentage, defined in the Eligible Group column below, of all Mechanical Engineering students in that classification. The number of active members in any classification should not exceed the percentages, defined in the Maximum Members column below, of the total number of Mechanical Engineering students in that classification.

Classification	**Eligible Group**	**Maximum**
First Term Junior	25%	17%
Last Term Junior	33%	25%

First Term Senior	33%	33%
Last Term Senior	33%	33%

Section 4: Students who are participating in the co-op/ internship program during the semester in which they become eligible candidates for membership shall be granted an extension on their candidacy. These students must complete the Pledge requirements the first full semester after they have returned to Texas A&M University at Qatar. The extension shall only last until that first full semester. Should the student choose to not participate in the Pledge activities, they must wait until they become eligible candidates again.

Process:
After having obtained the list of eligible students, invitation emails are prepared and sent out to each one of them, with a brief history of the society and asking them to confirm their willingness to join. Candidates who do not respond or reject the invitation are removed from the eligibility list.

Over the next few weeks, a mailing list is created for all eligibles, separate from the current member list, and meetings are set to explain the purpose and history of the society. Candidates are also informed regarding the initiation requirements, which are mainly five; any community service/volunteer/charity activity done by the candidate, attending a technical workshop/lecture series in the university, completing a minimum of 20 hours of student employment during the Fall semester, passing the initiation quiz on a preset date and time, and finally polishing the bent and painting the plaque as per PTS tradition.

With the final polished and painted bent and plaque, the candidates are required to obtain signatures from at least five MEEN faculty members, including the Program Chair, and the society President. A date is afterwards set for the initiation quiz and checking of proof of completion of the requirements. Candidates are to achieve a minimum of 80% on the multiple choice quiz based on the history of the local chapter and information given in the meetings, and may take the quiz as many times necessary to pass. The quiz takes place at the beginning of the Spring semester, typically around the end of the 2nd or 3rd week of classes, in one of the large lecture halls of the university. A semi-formal or business casual dress code is maintained, and the ceremony proceeds with the same order and rituals as described in the National Constitution. Once candidates receive their certificates and cards in the ceremony from the Faculty Advisor, a congratulatory dinner is held immediately afterwards. This marks the completion of initiation formalities and full induction of candidates into the society.

A brief summary of the info for all Beta Zeta initiations held so far is given below.

April 24, 2012: **11**

February 27, 2013: **7**

January 12, 2014: **14**

Total initiated: **32**

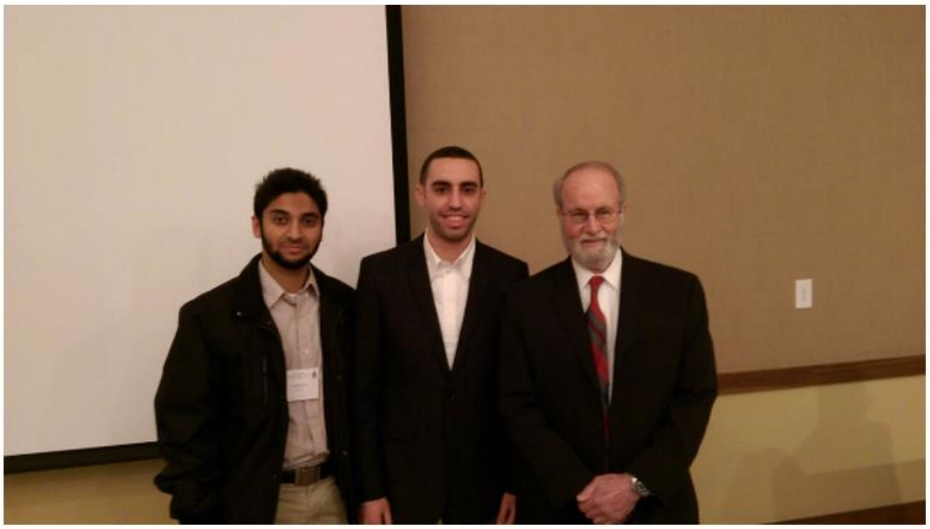
B. Chapter Activities

The Beta Zeta chapter at TAMUQ participated in and helped organize several activities throughout the academic year. Since the beginning of the 2014 academic year, almost all of its senior members, including the Executive Board, were involved in the Shell Eco Marathon Europe 2015 Senior Design Project. This oversaw the design, manufacture, and testing of a

fuel-efficient vehicle for participation in the Shell Eco Marathon competition in Rotterdam, the Netherlands in May 2015.

The leadership and skills workshop offered by Tau Beta Pi National, Engineering Futures Session, was also organized in collaboration with Tau Beta Pi and Phi Kappa Phi's TAMUQ chapters. The 2 day workshop was held on March 28th and 29th, 2015, in classroom 115 with the attendance of over 10 members. Participants learned effective leadership, presentation, and communication skills.

The President and Vice President attended the convention at the University of Illinois at Urbana-Champaign in March 2015. A new proposal was also given to the Faculty Advisor for selecting and taking two additional members to the convention in order to give them an insight on how to run the society in the coming year. The proposal was well-received and accepted, but unfortunately, last minute budgeting issues led to the inability of the members to accompany the Executive Board on the trip. At the convention, the Board participated in all activities organized by the Illinois Alpha chapter, and networked with several other chapters as well as the engineers brought in to talk regarding current global issues faced by mechanical engineers.



Mechanical engineering honor society attends national conference

Members of the mechanical engineering honor society at Texas A&M at Qatar attended the centennial convention of Pi Tau Sigma at the University of Illinois. The chapter attended talks and panel discussions, while also networking with various students and chapters across the U.S.

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Furthermore, a lecture was organized by the Office of Academic Outreach in collaboration with the Beta Zeta's chapter, in November 2014. The talk was given by Dr. John Lienhard of the National Academy of Engineering and Professor of Mechanical Engineering Emeritus at the University of Houston. It revolved around his proposition that the greatest invention so far was the concept of materials being able to make full use of tensile loading.

TEXAS A&M UNIVERSITY at QATAR
ACADEMIC OUTREACH

The Office of Academic Outreach presents

Tension: Greatest Invention of the 19th Century

Wednesday, 12 November, 11 a.m. – 12 p.m.
Lecture Hall 143, Texas A&M Engineering Building

PERHAPS we're a bit myopic as we look at great inventions of the 19th century. We look at specific things — such as steamboats, railroads and the telegraph. I argue that the greatest invention was not a thing, but a concept: We completely changed the way we built things when we recognized that new materials could make full use of tensile loading. That shift ushered in modern life as we now know it.

DR. JOHN LIENHARD

Member, National Academy of Engineering

Dr. John Lienhard is the M.D. Anderson Professor of Technology and Culture and Professor of Mechanical Engineering Emeritus at the University of Houston. Dr. Lienhard's research interests are in cultural history, thermal sciences, thermodynamics and boiling. He is a Fellow of the American Society of Mechanical Engineers and Fellow of the American Association for the Advancement of Science. In 2003, Dr. Lienhard was named a member of the US National Academy of Engineering.

Dr. Lienhard also is the founding author and voice of *The Engines of Our Ingenuity*, a radio program that tells the story of how our culture is formed by human creativity. This program has been written and hosted by Dr. Lienhard since its inception in 1988 and is heard nationally on public radio and produced by Houston Public Media.

An All Honor Societies banquet was also held in March 2015 right after the Engineering Futures session to recognize new, current, and former members. The Beta Zeta President and Faculty Advisor organized and hosted the event, which was attended by more than 100 members of the honor societies. Group pictures were taken with each honor society, and afterwards, dinner was served.

End of Report