PI TAU SIGMA ANNUAL CHAPTER REPORT

2017-2018

Guanajuato Beta Theta

A. Initiations

The proper selection of new members for Pi Tau Sigma is a determined factor in the chapter success. Therefore, we must consider the following factors for the selection of outstanding mechanical engineering students:

- School Performance.
- Soundness of character, moral, and honesty.
- Members and Advisor´s Opinion.

For the selection procedure, we consider all the sophomore mechanical engineering students with a Mexican Grade Point Average above 8.5 out of 10. After a thorough analysis between the members and advisor, only the students that meet the above factors and the required grade are selected. The selected students are tested along the academic year, if they keep a good performance and further shows cooperation and interest with the chapter, they are initiated during the next academic semester ceremony.

The first ceremony of initiation of this year had 2 undergraduates and 1 honorary members selected to be initiated on November 29th, 2017. The second ceremony had 4 undergraduates and it was carried out on June 25th, 2018. Also, we selected 8 students to be considered for initiation the next academic year (these students will be involved in all Pi Tau Sigma activities and based on their performance they could attain final selection).

B. Chapter Activities

Throughout this academic year the chapter was involved in the following activities:

1) Weekly Meetings.

Along the year, the members participated in meetings that aim to follow the activities of the chapter.

2) Software Courses

One of the main activities carried out semester and semester is to offer courses to our colleagues about computer programs that are used throughout the university career for example: Matlab, Solidworks, Labview, Maple, Fluent, etc. This year we had the participation of 187 students.

3) Technical visit

As part of the activities organized a technical visit to MMVO planned (for short, Mazda Mexico Vehicle Operation) in order to introduce them to students of Engineering Mechanical and Mechatronics processes carried out at the plant, technology used and the activities staff. The course was attended by 44 students and 2 teachers of the Division,

4) Food collection

During this year, a series of earthquakes in several states occurred in our country, leaving many people without homes. The chapter organized at the school to help a collection of food items such as food, water, medicines, clothes, etc.

5) Elementary School Visit

Annually members of the Guanajuato Beta Theta Chapter visited the fifth and sixth groups of the elementary school in the rural community of Palo Blanco. The objective of the visit was to motivate the children to continue studying. Activities were carried out where the children participated in the sample of 5 scientific projects.

6) Women in Engineering

The Women in Engineering program, from the ASME student chapter, seeks to promote more women to study engineering. This year we helped with the activities organized by the ASME student chapter for this event which brought together about 200 women interested in engineering. In this event, activities ranging from vocational talks to games, which seek draw the attention of women to engineering.

7) Academic Decathlon

The objective of this event is to encourage competition among engineering students, testing their learning in basic areas of knowledge. The dynamic is simple. Teams of four people answer questions about mathematics, physics, chemistry, biology, economics, geography, history, art, film and music. The three teams with the most successful answers reach the next round. At this point, a short break is granted to the three teams that will face each other to win the first place. Competition resumes and after many questions and answers a winner is selected. This event helps students rediscover basic concepts they may have forgotten. The participation of the contestants in team mode was a great stimulus for the discussion of ideas and the ability to agree with others.

8) Science and Engineering Congress

This congress was held for showing the undergraduate students the different areas of research in the engineering division of the University of Guanajuato. For this reason, researchers from the same division were invited to hold one-hour conferences. Great student participation was achieved thanks to the great advertising work of Pi Tau Sigma members; Posters were shared through social networks. In addition, a web page was designed to store the records of conference attendees. Twelve conferences took place, related to: Fractional differential equations and their applications, materials science, refrigeration and air conditioning systems, innovation in the automotive industry of Guanajuato, photovoltaic solar cells, quantum computing, bioengineering, composite materials and other interesting topics.

9) E^3Fair

Students of the Electrical Engineering, Mechatronics, Mechanics, Computer Systems, and Electronic Engineering career of the Irapuato - Salamanca Campus participated in the first edition of the "E3 Fair" Science and Technology Fair with the exhibition of 50 scientific projects in a didactic and fun way, in the House of Culture of Salamanca.
The exhibition was organized by Pi Tau Sigma Guanajuato Beta Theta and the American Society of Mechanical Engineers (ASME), which is headed by the concept of "Science for Children". About 900 sixth grade students in public elementary school made the tour of the stands and participated in the dynamic.