

ASME SJCET REPORT 2018- 2020

The ASME SJCET student chapter has a total of 103 regular members and 92 freshman membership (Firs years) in current academic year. Dr. Lijo Paul, Associate Professor, ME department is the staff advisor of the chapter.

The office bearers of the ASME SJCET student chapter of St.Joseph's college of Engineering and Technology include;

Student Chapter Chairman : Mr.Noel Saji (S6 ME)

Student Chapter Vice Chairman : Ms. Angitha Susan Mathew (S6 ME)

Staff Advisor : Dr.Lijo Paul, Associate Professor, ME Department

Executive members:

Secretary Edison George (S6 ME)

Joint Secretary Sandra Susan (S4 ME)

Treasurer Arjun Sharma (S6 ME)

Documentation Naveen Francis (S6 ME)

Publicity Abin Rajan (S4 ME)

SUMMARY OF ASME ACTIVITIES 2018-20

1. Technical talk on machine learning by Dr.Bijoy, Scientist , NASA, United States
2. Alumni Tech Talk 1
3. Alumni Tech Talk 2
4. Training for HPVC in E-Fest by FISAT

Activity No 1: September 7, 2018

Technical talk on machine learning by Dr.Bijoy, Scientist, NASA, United States

NASA! ... a big dream of many , a man working associated with it may be seen as a man with 'halo'. Same thing happened at SJCT campus on 7th September 2018. Dr. Bijoy V.T, research scientist, SSAI/NASA, Virginia, USA become a part of our golden history. As we all know ours is an upcoming chapter into this zone. A personnel from NASA to spend time with us is really a dream come alive experience .Dr. J David (Principal ,SJCTET) gave the welcome address , Dr.Lijo Paul (Associate Professor ,ME dept) gave an introduction about the guest of honour Dr. Bijoy V.T , HODs of different departments , staff and around 200 students attended the sessions. Mr Sachin José gave the vote of thanks.



The technical sessions begin at about 9:30 am and were taken as 2 parts. The first part of the session was all about global climate change. Why is the climate change? The NASA earth observing system (EOS), EOSDIS (earth observing system data & information system), climate data- different formats, climate informatics and challenging problems for climate information was included. The second part of the session was about AI perspectives in machine learning. AIMachine learning- deep learning, different machine learning systems, clouds & earth's radiant energy system (CERES), artificial neural networks (ANNs) are also included. The session was concluded with a small part about various career opportunities for a graduating student in the current scenario.

A life beyond sky , dream that everyone see but only a few can come up to it .Let's hope that some of us atleast reach into those dreams .Hard work can make everything happen . As Michael Korda says “the more you can dream, the more you can do”.

Activity No 2: September 28, 2018

The ASME SJCET chapter would like to conduct a half day Technical talk on the Mechanical startup companies. One of our former student and Alumni of IIT Madras, **Mr. Jacob Thekkekara, Co-Founder & CTO of Pi Beam Labs Pvt Ltd , Chennai** , has agreed to conduct the same for our mechanical Engineering students. We would like to conduct the programme on September 28th , 2018 (Friday) from 11.00 to 12.45 PM. As it is said home is where our heart is. It's being proved by our alumni tech talk series .Today (27/09/2018) we got the opportunity to interact with our alumni Mr Jacob Thekkekara through the technical talk on sustainable mobility.



Mr Jacob Thekkekara was our 2nd batch pass out. He is the CTO and co-founder of PiBeam that made an easy, quick and cost effective solution for moving loads. PiBeams's developed the India's first commercial solar pedal vehicle. PiBeams's unique and innovative technology for battery powered, pedal assist three-wheelers provide an apt solution for freight and passenger applications in both off-road and on-road situations. It was also the first geared tricycle. He managed to handle the listeners by becoming interactive. The session gave a view about entrepreneurs in India. While he gave clear idea about successful entrepreneur in India, his batch mate gave the experience of becoming successful from a failure. The sessions was started by 11.15 am and get concluded by 1pm.

Activity No 3: October 9, 2018

As a beginning to the E-fest participation from our college an introduction to human powered vehicle challenge (HPVC), a session was conducted. On 09/10/2018 (4:30 pm – 6:45pm) students from FISAT ASME chapter lead the training program. Three students (Aftan, Yadhu & Krishna) and an alumni (Shyam) from the HPVC team of FISAT gave a brief idea about what is the competition. They also gave an overall idea about all the events taking place at E-fest Asia Pacific 2019. Around 100 students participated for the same.



Activity No 4: October 22nd, 2018

The ASME SJCET chapter would like to conduct a Technical talk on the **Application Knowledge and carrier opportunities in Steam Engineering**. One of our former M.Tech student, **Mr.Dileep Cherian, Team Lead, Kerala Section, Forbes Marshall (P) Ltd, Pune**, has agreed to conduct the same for our mechanical Engineering students. We would like to conduct the programme on October 22nd, 2018 (Monday) from 11.00 to 12.45 PM.



ASME E-Fest Asia Pacific Level 2019 was held at Vellore Institute of technology on 2019 February 1st, 2nd and 3rd. It was a 3-day international fest. A total of 50 students went from St. Joseph College of Engineering and Technology to participate in different events conducted by ASME. Human Powered Vehicle Challenge, Student Design Competition, Old Guard Oral and Poster Presentation were some of the events which the students went to. Out of 40 teams for HPVC from all over Asia we had 2 teams from the college.

Human Powered Vehicle Challenge

ASME HPVC ASIA PACIFIC 2019, held on February 1, 2, and 3, is an Asia Pacific level contest of Human Power Vehicle Challenge 2019, organised by American Society of Mechanical Engineering (ASME) which offers young engineers a platform to innovate and excel in creative thinking and to demonstrate their technical ideas in mechanics and manufacturing of human-powered vehicle. It was in terms a great opportunity to participate in such events held, and our students of SJCET had immense desire to be a part of such technical events. Out of their great desire and diligent hardwork, two teams each of 20 members were able to take part in this technical event, after getting selected in presenting their design report. The two teams representing SJCET, TEAM AVEGA and TEAM FALCON were prepared for this event after performing their hard training under a group of experts from FISAT.

As a result of their hard work the two teams brought up their projects at VELLORE INSTITUTE OF TECHNOLOGY, Vellore, Tamil Nadu. A BYCYCLE and A TRICYCLE were made by the teams. Unfortunately team AVEGA was unable to pass on the safety check-

up due to some technical issues but team FALCON was on full energy, they presented in the drag race, which concentrated on the speed factor, as well as endurance race, which was for estimating the stability. After considering all necessary factors points were given by the honoured .It was a deliriously happy moment when our team was announced as the 13th rank holder out of the whole 40 teams. Surely this created a proud moment which was a feather on the hat of SJCET.



Team: AVEGA



Team :FALCON

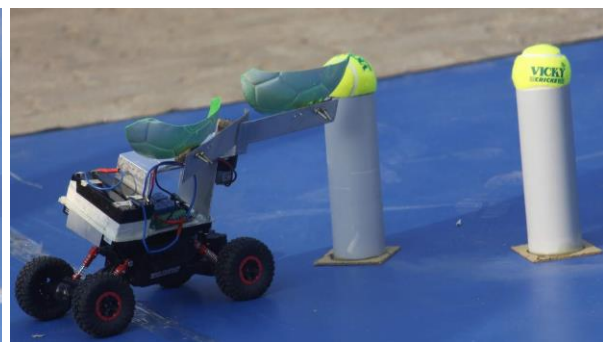
Student Design Competition

It was for the first time ASME SJ CET chapter attended for Student Design Competition (SDC). Every year ASME puts various different challenges for SDC. This year it was to design and build a ball picking robot. ASME provides a rule book and our design is supposed to be based on that rule book. Rule book specifies size and other electronic parts used in robot.

Our team name was TITAN. We were having 10 members on our team. Design and manufacturing was done by the help of each team members. The game was having 3 levels of rounds. Inspection, preliminary and knockout rounds. On first round our device was inspected by inspection team to check whether we build our robot based on rule book standards. It includes dimension check and analysing various electronics components used in our device. We passed that round with some good grades. After that preliminary rounds were conducted. During this round we were supposed to pick and place balls that are kept at height to a specific place. Balls were kept at 20CM height PVC pipes. Ball sizes varies from 5CM diameter to 25CM diameter. There we 16 balls altogether. Those who collect maximum balls and places it on starting point without dropping it will earn 3 points for each ball. During this round we could collect 2 balls altogether. Based up on this we were ranked 15 out of 24 teams.

Knockout rounds were carried out on second day of E-Fest. During these rounds two teams race these robots in a single track. One who collect maximum balls out of 16 total balls will enter to next rounds of game and other team will get knocked out. On first knockout round we could collect 8 balls out of 16 and we got passed to next knockout rounds. On next round we race against VIT and got knocked out.

This was a great experience for all of the team members since we could use our learned engineering knowledge to practical levels. We could get a rank of 8 out of 24 in our first attempt. This experience gave us an opportunity to use our engineering knowledge for designing and manufacturing a product.



Oldguard Competition

-The Old Guard Oral presentation Competition

An engineer, like all professionals, must possess a well-developed ability to communicate, both orally and in writing. This competition is designed to emphasize the value of an ability to deliver oral presentation. 2 students from SJ CET chapter named Angitha Susan Mathew and

Edison George participated in the Old Guard Oral Presentation Competition. Even though they couldn't acquire a position but they played their role well. Moreover they were able to expand their knowledge.

-The Old Guard Poster Presentation Competition

This poster competition is designed to emphasize the ability to deliver a visual presentation. Subject matter is too related to some area in the field of mechanical engineering. Akshara S khalesh of SJ CET chapter participated in poster competition with her vivid knowledge in presentation. She performed her level best by explaining things and expanding her knowledge.

Students from the SJ CET chapter participated for these competition with prior hard work for 2 months. Even though they couldn't grab a position they were able to expand there knowledge which was even more than a position. We know participation is much ahead than winning.



Interaction with ASME officials

Some of our students interacted with the ASME officials like :

- 1) Mrs. Callie Tourginy, Senior Vice President, Student and Early Career Development, ASME
- 2) Mr. John Beck, Manager at ASME
- 3) Mr. John Hassleman, Managing Director Government Relations & Engineering Education, ASME
- 4) Mr. Prakar Deep, Engineer-Programs & Philanthropy, ASME India
- 5) Mr. Madhukar Sharma, ASME India President
- 6) Mr. Sidarth Jadeja, ASME India Office
- 7) Mr. Dhaval Trivedi, ASME Young entrepreneur

Meeting with Mrs. Callie Tourigny was a nice one. She gave us more motivation and told us that love ASME and live through it. She has lighted our mind by her deep passion towards ASME. We have told more about our college and our ASME student section activities. She was very surprised at our activities in these short span. She told us to apply for student section funding program and have taught us how to apply for it. She has cleared our doubts about ASME online courses. The meeting with Mr. John Beck was a good experience. He has helped some of our E-fest attendees to take new free membership. He gave us a deep knowledge about "Access Engineering", "Smart Brief" and "engineering.com". We have given him our previous year's student section activities report. He appreciated us for our activities. He gave us a lot of gifts and so on. Another official Mr. John Hassleman gave us a new light of ASME career. He also told us to apply for student section funding. He has told more about different scholarship schemes provided from ASME. Experience sharing by Mr. Dhaval Trivedi was a powerful one. He has started as a participant. He got involved in it, grabbed his need. Now he is an entrepreneur. We asked him about the requirements needed for hosting EFX and his answer was "To host we need good infrastructure facilities, built up volunteers, we have to have an army; volunteer army." We have discussed about internships and industrial visits provided by ASME for student sections with Mr. Madhukar Sharma and Mr. Sidarth Jadeja. Mr. Prakar Deep said rework engineering is needed. He said us that refine and make the best. Be active, participate and try to do something most beneficial for the society.

It was a very delightful and mind-blowing experience to our students who participated in the ASME E-fest 2019. Our students were supremely inspired by the experience they had. We are really thankful to the authorities who are providing us with such great opportunities. The 13th position we secured in HPVC and 8th position in SDC will surely be a great inspiration for the future participants to score more and exhibit their talents. Such technically upholding events must be promoted in all our future plans for the welfare and growth of each student as an engineer and for the growth of SJCET student Chapter.