



AIChE TIET STUDENT CHAPTER ANNUAL REPORT

2018-2019



AIChE

The Global Home of Chemical Engineers



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ABOUT THE INSTITUTE:

Thapar Institute of Engineering and Technology (TIET) is one of India's oldest and finest educational institutions, which provides a steady source of highly skilled talent to the nation as well as overseas. Founded in 1956 with a campus spread across sprawling 250 acres, Thapar Institute of Engineering & Technology located in Patiala, has been a pioneer in Engineering, Research and Innovation.

It is rated amongst the top ranked innovation-driven private universities and technical institutes in the country. It has been accredited with an 'A' grade by the National Assessment and Accreditation Council (NAAC). Our Chemical Engineering Department BE program has earned accreditation from ABET (Accreditation Board for Engineering and Technology) last year.

ABOUT AIChE TIET STUDENT CHAPTER:

AIChE Student Chapter, TIET was chartered back in 2014. Since then, under the guidance of founder Chapter Advisor, Dr. Rajeev Mehta, the student chapter has been exponentially growing in every aspect. For the year 2018-19, there are 28 members shaping the chapter towards excellence. It constitutes members from first, second and third year from the Department of Chemical Engineering.

The present team comprises of 9 panel members:

- **Mr. Sahil Chaudhary**
(Student President)
- **Mr. Viren Kapur**
(Student Vice President)
- **Mr. Shubham Bhardwaj**
(Student Secretary)
- **Ms. Shubhangee Raj Garg**
(Student Treasurer)
- **Ms. Meghna Bansal**
Officer (Publicity Head)
- **Mr. Vinayak Singla**
Officer (Webmaster)
- **Mr. Sagar Divyansh Khare**
Officer (Events Head)
- **Ms. Ditikshya Sahoo**
Officer (Content Head)
- **Mr. Honney Taak**
Officer (ESC Chapter Liaison)

Other members in the AIChE Student Chapter include Shruti Chouhan, Uttamjot Kaur, Simran Kaur Birdi, Sahib Watts, Harveen Kaur Tatla, Lakshya Saxena, Himanshu Pal, Nitish Gupta, Yashasvi Mittal, Siddharth Pandey, Anwasha, Shourya Singh, Abhishek Jain, Riya, Sharandeep, Sankalp Jain and Mohommad Zachariah.

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EVENTS AND ACTIVITIES:

Throughout the year 6 riveting events were conducted and they are mentioned below in a chronological order along with their respective photos:

Chem-O-Philia

Date: 8th October, 2018

The competition was conducted with joint efforts of AIChE Student Chapter TIET and Azeotropy, IIT Bombay. The competition had two rounds (qualifying and final rounds). The qualifying round was conducted in TIET itself with participation of 28 members i.e. 14 teams. The qualifying round had questions based on Chemical Engineering. Two teams were promoted for the final round, which was held in IIT-Bombay on 16-17th March 2019.



Fig.1 The speaker addressing the participants of Chem-o-Philia



Fig.2 Students actively participating in the quiz

PICRASSO

Date: 29th October, 2018

This event was primarily based on basic science taught in higher classes of school and the participation was open for everyone. The event consisted of two rounds- Crossword and Pictionary.

First round i.e. Crossword was a swift round .The questions were brain teasing in order to test intellectual and logical reasoning of the students. There were 30 teams out of which 5 teams were promoted to the next round.

The final round i.e. Pictionary was a brain-whacking part, which focused on judging the coordination between the group members of a team. One player from each team had to attempt the task of illustrating and explaining the chosen word taken out from number of chits related to general science. Second player had to guess the word within the time limit of 30 seconds. The team which was able to coordinate well and guess highest number of correct answers was ranked accordingly. Top 3 teams were awarded with prizes.



Fig.3 Picrasso participants solving science quiz



Fig.4 Picrasso participant illustrating a clue on board

AIChE MEMBERSHIP REGISTRATION DRIVE

The drive was conducted among student chapter members and other Chemical Engineering students. A meeting was conducted among the Chemical Engineering students in order to create awareness about the benefits of being an AIChE member. Around 25 undergraduate memberships were inducted as members in the student chapter.

INDUSTRIAL AUCTION

Date: 24th January, 2019

The event was mainly designed for participants to think like a businessman. A team of 3-4 members had to make a business model to *set-up* a Sugar Industry. The event consisted of two rounds – the first round was Crossword followed by an Industrial Auction. In the Crossword, there were physics related words, which had to be searched within a given time limit. The final round was Industrial Auction for which top five teams were selected. In this round, each team was given a fixed amount of balance to buy the industrial equipment required to *set-up* the Sugar Industry. The teams were allowed to take loan in case the balance ran out. The team had to build the industry in a minimum amount while approaching maximum efficient equipment. The results were declared keeping in mind the team which used least the balance and gave maximum efficiency for the industry. The top three teams were awarded with attractive prizes.



Fig. 5,6&7 The event holders and participants of the “Industrial Auction”

QUIZAPUR

Date: 13th February, 2019

This was a mind-boggling event which took the maximum attraction of students from the institute. The first round was a pen-paper MCQ test consisting of 40 questions to be completed within 15 minutes. Five teams were selected to play the further rounds. The next round consisted of 2 parts- “Who am I?” and “Describe the scene”. In the round “Who am I?”, where a character was displayed to the team. One had to identify and name that character. In “Describe the scene” as the name suggests, a screenshot from an episode of different TV Show was shown. The team had to explain the scene providing all the details. Finally 4 teams made their way to the final round that was Rapid Fire. On the screen, words related to TV Shows were flashed on the screen and teams had 1:30 minutes to tell those names. The one who was able to guess the maximum words, won.



Fig.8, 9&10 “Quizapur” being held in Tan-Audi with a large number of participation

i-AWARENESS

Date: 13th February, 2019

The event was conducted by the Student President for AIChE members. There were two rounds- first round (elimination round) was a quiz in which general questions regarding chemical companies' from all over the world were asked. Second round was based on chemical companies' logo. It was a buzzer round, shortlisted participated had to identify the logos. Winner was judged on the basis of highest number of correct answers. The event was followed by the motivational videos, which were totally based on encouraging females in Chemical Engineering discipline.



Fig.11 The female team of AIChE Student Chapter



Fig.12 A short documentary on women empowerment being shown

INDUSTRIAL VISIT

Date: 14th February, 2019

The students of Chemical Engineering visited HPCL-Mittal Energy Limited (HMEL), Bathinda. It is a joint venture between Hindustan Petroleum Corporation Ltd and Mittal Energy Investment Private Ltd, Singapore. The industry is a zero bottom plant and is the single largest investment in the state of Punjab. This is the first oil and gas industry to be *set-up* in the state. They have a world record of establishing the industry in just 3.5 years.

One of the employees of the refinery (also an Alumni of Thapar) addressed and introduced the students to HMEL. He explained about the functioning of the unit by delivering a presentation. During the session, students interacted with him very effectively and cleared the doubts that they had regarding the functioning of the plant. The session was concluded followed by a short meal. After the meal, the students were taken to visit the plant in a bus where they got a clear idea about Crude Distillation Unit (CDU), Vacuum Distillation Unit (VDU), Delayed Coker Unit (DCU), Naphtha Hydrotreater, Fluid Catalytic Cracking unit (FCC), Hydrogen Generation Unit (HGU), Sulphur recovery unit, Propylene unit and cooling towers. Many of the points explained theoretically in the first session were explained again practically by Mr. Nitin, Senior Head. This helped the students in gaining practical knowledge along with theoretical knowledge of unit operations.

This trip was highly useful for the students in terms of practical knowledge, motivation for further learning of the Chemical Engineering discipline and finding placement opportunities in such industries.



Fig.13 AICHE Student Chapter team along with Chemical Engineering faculty at HMEL, Bathinda

CHEM-E-JEOPARDY

Date: 26th March, 2019

CHEM-E-JEOPARDY is a worldwide event of AIChE. In this event one has to find out, introspect and question the answers. It consisted of 4 competing rounds in which around 20 teams of 2 participated. In the first round (Catch the LOGO) participants have to identify the 50 logos displayed on the screen. The logos were of Chemical companies from all over the world. Then the second round was the Jeopardy-I round in which answers from Chemical engineering course were displayed. Participants had to think and question the answer. The scores of these two rounds resulted in selection of top 5 teams.

Third round(Bonus the logo) was a bonus round for the same 5 teams to gain more marks. It was a buzzer round in which participants were asked to identify the difficult logos of Chemical companies. It was followed by the last round which was the Jeopardy-II round. Each team was asked the separate set of 7 technical questions. The winner team was evaluated on the basis of score obtained in all the four rounds. Winner were:

1st – Sahil and Vinayak

2nd- Shubham and Meghna

3rd- Lakshya and Himanshu



Fig.14 &15 “Chem-e-Jeopardy” being held among Chemical Engineering students

BACHPAN KI YAADEIN

Date: 27th March, 2019

BACHPAN KI YAADEIN was an event that was basically held to make the students rejuvenate their childhood. The event mainly focused on questions based upon cartoon series.

The first round: “Puzzle Round” dealt with each team identifying cartoon shows based on character names from a collage. The time limit for the round was 4 minutes. Top ten teams were selected to play the further rounds.

In the second round “Junior Architect” each team was shown 2 pictures for a short period of time. Then based upon their memory each team got to pick a fixed number of blocks and replicate the design as in the pictures. Based upon the correctness of the model, the teams were judged.

The name of the third round was “Smart as Sheldon”. This round was the deciding round. It consisted of three types of questions- 1 mark, 4 marks and 6 marks respectively. Each team had to pick six questions on their own which should have ranged between 15-25 marks. The team with maximum points at the end was declared the winner. The winners were:

1st- Meghna, Viren and Vinayak

2nd- Shubham, Abhinandan and Shubham Bhardwaj



Fig. 16 &17 A fun filled event- “Bachpan Ki Yaadein” being held. This event showed a large participation from all branches.

GUEST LECTURE ON ‘STEAM METHANE REFORMING’

Date : 1st April, 2019

A guest lecture was organized on one of the important topics of Chemical Engineering i.e “Steam Methane Reforming”. Keeping the view that Hydrogen is a very important raw material for Fertilizer industry, Methanol plant and Refineries. Mr. Nitin Mittal (Operation Coordinator-Turnaround) delivered a guest lecture who is working in HMEL, Bathinda and having overall 21 years of experience in Precommissioning, commissioning, startup/shutdown and normal operation for large capacity Refinery(Hydrogen generation unit). He also shared his practical experience among the students. After the lecture, doubts session was conducted among the students which helped them gaining a lot from the lecture.



Fig.18 The guest lecturer ‘Mr. Nitin Mittal’ delivering a lecture on “Steam Methane Reforming”



Fig.19 The guest lecture was organized for both the Chemical Engineering faculty and students

i-AWARENESS 2.0

Date : 3rd April, 2019

The event was conducted to create awareness among 1st and 2nd year students in deciding their 6 week Internship. In this event Juniors clarified their doubts from the seniors regarding the different type of Chemical process industries. Few seniors shared their vocational training experiences through Power point presentations. They guided by advising them the points to keep in mind before doing vocational training which include applying material balance, energy balances along with focusing on various equipments and unit operations/processes involved.

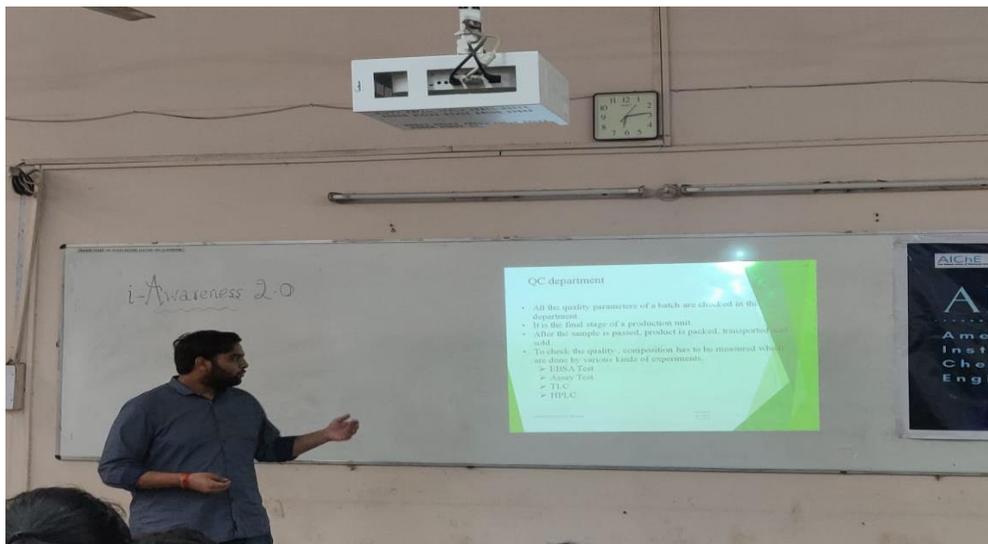


Fig. 20&21 Third year Chemical Engineering students explaining the importance of 6-week internship to Chemical Engineering Students

CONCLUSION

During the period 2018-2019, AIChE Student Chapter TIET organized total of 11 events (Technical and Non-Technical). These events had a very good level of participation and also in many cases these events enhance the technical knowledge of participants. Technical events like Chem-o-Philia, Industrial auction, Chem-e-Jeopardy, iAwareness, iAwareness 2.0 and majorly the industrial visit and guest lecture. We plan to continue the present momentum of our chapter and will come up with some more new events in future like number of expert talks from industrial experts which will enhance the technical and practical knowledge of students. Also, we are currently in process of having a Sister chapter with International University which will help in sharing technical ideas among both university's students of Chemical engineering discipline.