



JNTUK FIPI Student Chapter

ANNUAL REPORT

Feb 2023 – May 2024

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
UNIVERSITY COLLEGE OF ENGINEERING KAKINADA(A)
DEPARTMENT OF CHEMICAL ENGINEERING AND PETROLEUM ENGINEERING

The JNTUK-FIPI Student Chapter provides a platform for various professional, social, and cultural activities to enhance different skills among students. The main objective of the FIPI Student Chapter is to develop skills in the fields of petroleum engineering, petrochemical engineering, and chemical engineering. Additionally, it aims to provide a common platform for students, academicians, experienced resource persons, and technologists to regularly exchange ideas. The chapter enriches petroleum courses and promotes industry-based practical learning through interactive knowledge-sharing sessions. FIPI offers students the opportunity to interact with and learn from highly experienced and skilled professionals through both virtual and offline sessions.

This year, the chapter offered a series of webinars and knowledge-sharing sessions etc., for students to enhance their learning in the fields of petroleum engineering and petrochemical engineering. These sessions were equally effective in imparting practical knowledge and enhancing technical skills, comparable to live sessions. Additionally, to promote healthy competition and encourage students to discover their hidden talents, the chapter organized various competitions. The events conducted are as following: -

- 1) **10th May 2023:** As part of the summer internship program, offline internships were arranged for all third-year petroleum and chemical students. They were afforded the wonderful opportunity to intern at various esteemed companies including ONGC, HPCL, Subsea, BPCL, GAIL, FACT, DFPCL, and others. These internships were coordinated by the Department of Chemical Engineering and Petroleum Engineering, UCEK (A), JNTUK, in collaboration with the FIPI Student Chapter – JNTUK, affiliated with FIPI. Students conveyed their appreciation for these opportunities, citing their significant value in enhancing valuable industry experience and develop key skills in a dynamic and innovative environment. Learning under expertise mentorship provide invaluable insights that not only enhance skills but also foster confidence and innovation.

Glimpses of the respective internships:





2) **30th May 2023:** Due to a scheduling conflict with the III B. Tech student's internship program, the II B. Tech students of the Department of Chemical Engineering and Petroleum Engineering participated in a 15-day Skill Development Program instead of their Summer Internship Program. Organized by the Department of Petroleum Engineering & Petrochemical Engineering, UCEK (A), JNTUK in association with the FIPI Student Chapter – JNTUK, and guided by Faculty Advisor **Prof. K.V. Rao** with coordinators **Dr. B. R. Srinath Rao** and **Dr. Sk. Liyakhat Ahmed**, the program launched with an online session on 30.05.2023. The inaugural session featured **Dr. V. Ravikumar** from BPCL R & D Center, **Dr. M. H. M. Krishna Prasad**, Principal of UCEK, and other distinguished guests. Ninety students, including participants from GIET, attended the sessions via Zoom, which were held thrice daily, excluding Sundays, from 30.05.2023 to 16.06.2023. The program included 28 experts from reputable companies like BPCL, ONGC, Essar, Petronas, HPCL, and more, covering a wide range of topics essential to Chemical Engineering and its industrial applications. **Dr. V. Ravikumar's** opening lecture on the petroleum refining industry set an engaging tone, followed by various sessions on refining operations, equipment, and safety. The program also addressed personal behaviour, recruitment processes, and entrepreneurship opportunities, concluding with a valedictory function on 16.06.2023. The Skill Development Program provided invaluable industry insights and practical knowledge, enhancing students' understanding and preparedness for their future careers.

The Detailed Programme schedule and session wise speakers was given in the list below:

Programme schedule	Date & Time	Resource Person / Speaker
Day – 1	30.05.2023	
Inaugural Session	10:00 am – 11:00 am	Chief Guest: Dr. V. Ravikumar , Head, BPCL R & D Center, Noida, UP
Break	-	
Overview of Petroleum Refining Industry	11:15 am – 12:45 pm	Dr. V. Ravikumar , Head, BPCL R & D Center, Noida, UP
Lunch Break	-	
Introduction to Petroleum Refinery Operations and Petroleum Products	02:00 pm – 03:30 pm	Shri Abhinav Banerjee , Sr. Manager (Projects), BPCL, Mumbai
Day – 2	31.05.2023	
Atmospheric Distillation of crude Oil	09:00 am – 10:30 am	Shri B. V. Ramana Murthy Ex Specialist (Process), KIPIC, Kuwait
Break	-	
Vacuum Distillation Crude Oil	10:45 am – 12:15 pm	Shri P. Ram Murthy Former Head, Technical Services, Essar Vadinar Refinery & Ex Chief Commercial Officer (P&O), International Trading for Crude & Products, Essar Group, London.
Lunch Break	-	
Visbreaking	02:00 pm – 03:30 pm	Shri Abhinav Banerjee , Sr. Manager (Projects), BPCL, Mumbai
Day – 3	01.06.2023	
Fluid Catalytic Cracking	09:00 am – 10:30 am	Shri P. Ram Murthy Former Head, Technical Services, Essar Vadinar Refinery & Ex Chief Commercial Officer (P&O), International Trading for Crude & Products, Essar Group, London.
Break	-	
Hydrocracking	10:45 am – 12:15 pm	Shri Y. Viziakumar Ex Chief Specialist, Petronas, Malaysia
Lunch Break	-	
FCC – Deep Cracking for Olefins	02:00 pm – 03:30 pm	Shri Y. Viziakumar Ex Chief Specialist, Petronas, Malaysia

Day – 8	07.06.2023	
Gas Cracking	09:00 am – 10:30 am	Shri Dara Vijay Kumar, Expert in Gas Cracking, Kuwait
Break	–	
Manufacture of Ethylene Oxide & Ethylene Glycol	10:45 am – 12:15 pm	Shri Sushil Kumar Expert in Petrochemical, Ex-RIL
Lunch Break	–	
Manufacture of VCM and PVC	02:00 pm – 03:30 pm	Shri C. Srinivasa Babu, Executive Director (Technical), TGV SRAAC Limited, Kurnool
Day – 9	08.06.2023	
Production of Ethyl Benzene & Styrene	09:00 am – 10:30 am	Dr. S. V. Praveen, Director (Retd.), LG Polymers
Break	–	
Production of Polystyrene	10:45 am – 12:15 pm	Dr. S. V. Praveen, Director (Retd.), LG Polymers
Lunch Break	–	
Day – 4	02.06.2023	
Hydroprocessing	09:00 am – 10:30 am	Shri Jose N. Manager, HPCL R & D, Bangalore
Break	–	
Catalytic Reforming	10:45 am – 12:15 pm	Shri Sandiri Santhoshkumar Reddy Asst Manager, HPCL R & D, Bangalore
Lunch Break	–	
Processing of Bottom of the Barrel – Coking	02:00 pm – 03:30 pm	Shri Y. Vizakumar Ex Chief Specialist, Petronas, Malaysia
Day – 5	03.06.2023	
Merox Process	09:00 am – 09:45 am	Ms. B. Sailaja, Manager-Technical Visakha Refinery, HPCL
Hydrotreating	09:45 am – 10:30 am	Shri A.V.S. Kaushik, Manager-Technical Visakha Refinery, HPCL
Break	–	
Acid Gases Removal from Refinery Gases	10:45 am – 12:15 pm	Shri J. Ravi Srinivas, Expert in Petroleum Processes, Abu Dhabi
Lunch Break	–	
Sulfur Recovery	02:00 pm – 03:30 pm	Shri J. Ravi Srinivas, Expert in Petroleum Processes, Abu Dhabi
Break	–	
Effluent Treatment in Petroleum Refineries	03:45 pm – 05:15 pm	Shri B. Gopi, Manager-Technical Visakha Refinery, HPCL

Day – 6	05.06.2023	
Fired Heaters	10:45 am – 12:15 pm	Shri Abhinav Banerjee, Sr. Manager (Projects), BPCL, Mumbai
Lunch Break	-	
Heat Exchangers	02:00 pm – 03:30 pm	Shri Y. Vizakumar Ex Chief Specialist, Petronas, Malaysia
Day – 7	06.06.2023	
Overview of Petrochemical Industry in India	09:00 am – 10:30 am	Dr. Jasra, Senior Vice-President, RIL
Break	-	
Feed Stocks & Building Blocks for Petrochemicals	10:45 am – 12:15 pm	Shri C. Srinivasa Babu, Executive Director (Technical), TGV SRAAC Limited, Kurnool
Lunch Break	-	
Naphtha Cracking	02:00 pm – 03:30 pm	Shri R. V. Appa Rao Expert in Petrochemicals, Bangalore
Natural Gas Reforming & Manufacture of Ammonia: Challenges	02:00 pm – 03:30 pm	Shri B. B. K. Uma Maheswara Rao, Assistant General Manager, NFCL, Kakinada
Day – 10	09.06.2023	
Manufacture of Phthalic Anhydride	09:00 am – 10:30 am	Shri T. Venkateswarlu Former Vice- President, Mysore Petrochemicals Ltd.
Break	-	
Manufacture of LLDPE, HDPE & Polypropylene	10:45 am – 12:15 pm	Shri R. V. Appa Rao Expert in Petrochemical, Bangalore
Lunch Break	-	
Production of Aromatics	02:00 pm – 03:30 pm	Shri P. M. Rao, Expert in Aromatics Technology, Kuwait
Day – 11	10.06.2023	
Overview of a Pharma Industry in India	09:00 am – 10:30 am	Shri Bangarubabu Rongali CEO & Managing Director ICH Pure Lifesciences Pvt. Ltd., Hyderabad
Break	-	
Manufacture of Active Pharmaceutical Ingredients – Case Studies	10:45 am – 12:15 pm	Shri Bangarubabu Rongali CEO & Managing Director ICH Pure Lifesciences Pvt. Ltd., Hyderabad
Day – 12	11.06.2023	
Process Equipment in Pharma Industry	09:00 am – 10:30 am	Shri J. Dolanath Head - Process Engineering & Project Management Granules India Limited, Hyderabad

Break	-	
Entrepreneurship and Opportunities in Pharma Industry.	10:45 am — 12:15 pm	Shri K. Bhaskar Gupta Managing Director Synpure Labs India Pvt. Ltd, Hyderabad
Day – 13	12.06.2023	
Process Safety	09:00 am — 10:30 am	Shri M. Koteswara Rao Former Executive Director Indian Glycols Limited
Break	-	
Personal & Behavioral Safety	10:45 am — 12:15 pm	Shri M. Koteswara Rao Former Executive Director Indian Glycols Limited
Lunch Break	-	
Centrifugal Pumps	02:00 pm — 03:30 pm	Shri K. Madhava Pradeep Expert from NFCL
Day – 14	13.06.2023	
Reciprocating Pumps	09:00 am — 10:30 am	Shri D. V. S. R. Giridhar Expert from NFCL
Break	-	
Compressors and Blowers	10:45 am — 12:15 pm	Shri P. Durga Pavan Kumar Raju Expert from NFCL
Day – 15	15.06.2023	
Types of valves used in Process Industry and their Function	09:00 am — 10:30 am	Shri Satish Kanekal Head-Systems and Certification, Integral Process Controls India Pvt Ltd
Break	-	
Advantages & Disadvantages of different valves.	10:45 am — 12:15 pm	Shri Satish Kanekal Head-Systems and Certification, Integral Process Controls India Pvt Ltd
Lunch Break	-	
Specifications and Selection criteria of Valves	02:00 pm — 03:30 pm	Shri Satish Kanekal Head-Systems and Certification, Integral Process Controls India Pvt Ltd
Day – 16	16.06.2023	
Pressure & Safety Relief Valves	09:00 am — 10:30 am	Expert from Integral Process Controls Pvt. Ltd.
Break	-	
Valedictory Function	10:45 am — 12:15 pm	-

3) **11th September 2023:** The JNTUK FIPI Student Chapter celebrated its 7th Foundation Day, with great enthusiasm. The event was attended by 120 people, including 112 members, 5 guests, and 3 faculty members. The new office bearers for the 2023-2024 academic year were installed during the ceremony. The chapter plans to organize various activities throughout the year, such as knowledge sharing sessions, community programs, mentor programs, socially relevant programs, outreach programs, workshops, quick polls, group discussions, open mics, sports activities, and a national seminar. The event was graced by distinguished guests, including **Shri D. Siva Kumar**, Lead-Subsea O&M, KGD6, RIL, and **Shri P. V. S. K. Sitapathi Rao**, Chief General Manager (P), Head Engineering Services, EOA, ONGC, Kakinada. The Guests of Honor are **Dr. U. V. Ratna Kumari**, Vice Principal, UCEK(A), JNTUK and **Prof. K. V. Rao**, Faculty Advisor, JNTUK – FIPI Student Chapter spoke on the occasion. **Dr. K. Krishna Bhaskar**, Head, Dept. of CHE & PE, presided over the event. The chapter expressed gratitude towards the industries for providing internship opportunities to the students and sought their continued support in the future. The guests of the meeting are requested to handover the certificates to the third-year students who had finished their internships in the summer.

Office Bearers of JNTUK FIPI Student Chapter for 2023-2024:



List of Office Bearers of JNTUK FIPI Student Chapter for 2023-2024

1	President	Mr. Nedunuri Ricky Jacinth, IV CHE
2	Vice-President	Mr. Kalla Sri Sai Srinivasa Lakshmi Vinay, IV PE
3	Secretary	Mr. Mamidi Shyam, III CHE
4	Joint Secretary	Ms. Maansi Jain, III PE
5	Treasurer	Mr. Marada Ananth Kumar, IV CHE
6	Faculty Liason	Mr. Ardhani Veera Venkata Durga Prasad, IV PE
7	Programme Chairperson	Mr. Parimi Benhur, IV CHE
8	Membership Chairperson	Ms. Revu Keerthika, IV CHE
9	Membership Coordinator	Ms. Achanta Mounica, IV PE
10	Communication Chairperson	Ms. Chennamsetti Jyotsna Latha, IV PE
11	Industrial and Public Relation Coordinator	Mr. Gadde Nikhil, IV CHE
12	Environmental & Social Responsibility Coordinator	Ms. Kassetti Likitha Sushma, IV CHE
13	Social Activities Chairperson	Mr. Karri Prashanth, IV PE
14	Cultural and Photography Coordinator	Mr. Bammidi Nitesh, IV PE
		Ms. Pentakota Sai Sindhu, IV CHE
15	Web Coordinator	Mr. Karedla Sriharshil, IV CHE
		Mr. Gidla George Lawrence, IV PE
16	Sports Coordinator	Mr. Dheeravathu Vara Naga Prasad Naik, IV CHE
		Ms. Medisetti Vennela, IV PE
17	Faculty Coordinator	Mr. P. Anil Kumar
		Ms . P.Varsha
18	Faculty Advisor	Prof. K.V. Rao

Glimpses of the celebration:



4) **11th October 2023:** The Federation of Indian Petroleum Industry (FIPI) Student Chapter at JNTUK organized a reflective writing event for 1st and 2nd year B. Tech students, aiming to enhance their skills and awareness on various topics. The event engaged with 180 students from both Chemical Engineering and Petroleum Engineering, who actively participated by expressing their perspectives on images related to pressing issues like global warming, right to vote, etc. The students were encouraged to interpret the pictures and articulate their understanding, fostering critical thinking and creativity. The active involvement of the office bearers from JNTUK FIPI Student Chapter contributed significantly to the success of the event, culminating in a program that acknowledged and appreciated the enthusiastic participation of all attendees.

Glimpses of the event:



5) **18th October 2023:** FIPI JNTUK student chapter organized an insightful industrial visit for the 3rd year Chemical Engineering students to Coromandel International Limited, located in Kakinada. This visit was meticulously planned to provide the students with a practical understanding of the theoretical concepts they have been studying, offering them a glimpse into the real-world applications of their academic knowledge. The visit to this facility aimed to expose the students to various aspects of chemical engineering in an industrial setting, including production processes, safety protocols, quality control, and environmental management practices. The students witnessed the application of advanced technologies and modern equipment used in the industry, which enhanced their understanding of the operational aspects of a large-scale industrial plant.

Glimpse of the visit:



6) **1st November 2023:** Swachh Bharat Abhiyan, a national cleanliness campaign launched by the Government of India in 2014, aims to promote cleanliness and hygiene across the country. In alignment with this national initiative, the Department of Chemical Engineering and Petroleum Engineering at JNTUK organized a series of activities to foster cleanliness within the department and the broader college campus. These activities saw active participation from both faculty members and students, who worked collaboratively to clean and maintain their surroundings. The initiative included various events such as cleaning drives, awareness workshops, and seminars on the importance of sanitation and hygiene.

Faculty and students were encouraged to take part in regular clean-up efforts, ensuring that laboratories, classrooms, and common areas remained spotless. Furthermore, it instilled a heightened sense of responsibility among individuals towards maintaining cleanliness in their personal and shared spaces. By engaging in these activities, participants developed a deeper understanding of the importance of cleanliness and hygiene, which transcended beyond the campus into their daily lives. The collective effort not only improved the physical environment but also fostered a culture of continuous commitment to cleanliness and community well-being.

Glimpses of the event:



7) **9th December 2023:** An engaging event known as the "PowerPoint Battle" was organized. During this event, various topics were distributed among the participating students, challenging them to create and present compelling PowerPoint presentations. To ensure a fair and knowledgeable evaluation, subject matter experts from the Department of Chemical Engineering and Petroleum Engineering, JNTUK were invited to serve as judges. These experts assessed the students' presentations based on their content, clarity, and overall presentation skills. The winners of the PowerPoint Battle were announced at the end of the event, with recognition given to those who demonstrated exceptional presentation abilities. This program was designed with the primary objective of helping students overcome their fear of public speaking and performing on stage. By participating in this event, students not only enhanced their presentation skills but also gained valuable experience in effectively communicating their ideas in front of an audience. The PowerPoint Battle served as an excellent opportunity for students to build confidence, improve their technical communication skills, and engage in a constructive and educational competition.

Glimpses of the event:



8) **7th January 2024:** A bunch of students decided to pay a visit to an old age home nearby, eager to not only offer companionship but also glean wisdom from the elders residing there. Armed with baskets filled with an assortment of healthy fruits and delicious meals, they were greeted by the sight of elderly faces lighting up with anticipation and gratitude. Sitting

down with the residents, the students engaged in friendly conversations, sharing stories and laughter. They listened attentively to the tales of the past, finding wisdom in the words of those who had lived through so much. In between the cheerful banter and the exchange of nourishing treats, the students also took the opportunity to seek advice from the elders. They asked about life lessons, sought guidance on challenges they were facing, and listened intently as the elders imparted their invaluable insights. The elders, in turn, were delighted to share their experiences and offer words of wisdom to the younger generation. For the students, it was a humbling experience, a chance to learn from the wisdom of age and to offer a bit of companionship to those who might feel lonely.

Glimpses of the visit:



9) **6th February 2024:** Two of our students **NEDNURI RICKY JACINTH** and **GUTTULA VARUN KUMAR** got opportunity to be a part of the **INDIA ENERGY WEEK 2024** as a representative from **JNTUK FIPI student chapter**. The event, a beacon of innovation and collaboration, was inaugurated by the honourable Prime Minister of India, **Shri Narendra Modi**, setting the stage for a transformative discourse on the nation's energy landscape. The

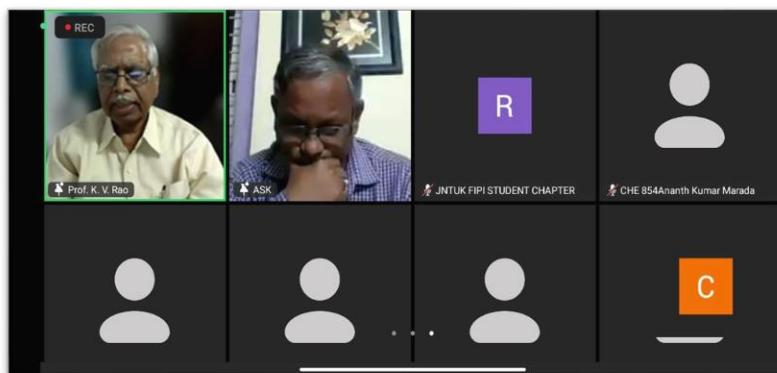
event was also graced with the presence of **Shri Hardeep Singh Puri** (Union Minister for Petroleum and Natural Gas), **Shri Rameswar Teli** (Union Minister of State for Petroleum, Oil and Natural Gas), **Dr. Pramod Sawant** (Chief Minister, Goa), **Shri P S Sreedharan Pillai** (Governor, Goa) and more esteemed guests from various sectors, adding a touch of authority and insight to the proceedings. Visionary industrialists and leaders from around the globe graced the event, creating an unparalleled networking opportunity for all attendees from various organisations like Federation of Indian Petroleum Industry - FIPI, Oil and Natural Gas Corporation Ltd, Directorate General of Hydrocarbons under MOPNG, Petroleum Planning and Analysis Cell(PPAC), MoPNG, Oil India Limited , bp, Bharat Petroleum Corporation Limited, MNGL MS-CHIKHALI, GAIL Social, SLB, ExxonMobil, IRZ and etc. The technical sessions and conferences were meticulously curated, delving into the intricacies of the energy sector's present and future. From groundbreaking technological advancements to sustainable practices, the event encapsulated the entire spectrum of the industry's evolution.

Glimpses of the event:



10) 13th March 2024: An enlightening knowledge sharing session on "E-Mobility," featuring **Dr. A. Srinivas Kumar**, an Outstanding Scientist and Technologist, and the former Director of the Naval Science and Technological Laboratory (NSTL) in Visakhapatnam. Dr. Kumar's extensive expertise and groundbreaking work in the field will provide invaluable insights into the significant impact of electric mobility on our environment and economy. This session will focus on the dual benefits of e-mobility: reducing emissions and lowering fuel consumption, which in turn decreases operating costs. The transition to electric vehicles (EVs) is a critical step in addressing climate change by minimizing greenhouse gas emissions from the transportation sector. Additionally, EVs offer economic advantages by reducing dependency on fossil fuels, leading to substantial savings on fuel costs. Attendees will gain a deeper understanding of how e-mobility contributes to a sustainable future and the technological advancements driving this transformation.

Glimpses of the session:



11) 16th March 2024: We are delighted to report on the recent workshop on "Process Safety Elements and Its Applications in Oil & Gas Industries," conducted by **Dr. Rekhapalli Srinivasa Rao** from ORYXGTL, Doha, Qatar. The event saw the participation of around 400 students from various branches of JNTUK and its affiliated colleges. Distinguished guests, including **Dr. MHM Krishna Prasad**, Principal of JNTUK, and **Dr. KVSG Murali Krishna**, Director, ODL & OL Programmes, also graced the occasion. **Dr. Srinivasa Rao** delivered an insightful session covering critical aspects of process safety. Key topics discussed included the routes of entry of hazardous substances into the human body, the consequences of working at height, and comprehensive process safety management. The workshop also delved into process safety information, process hazard analysis, operating procedures, emergency preparedness and responses, and incident investigations. The

engaging and informative presentation provided students with a deep understanding of the importance of safety protocols in the oil and gas industry, highlighting essential practices for ensuring a safe working environment.

Glimpses of the workshop:



12) 04th April 2024: The 12th Convention of FIPI Student Chapters was held on 4th April 2024 at Rajiv Gandhi Institute of Petroleum Technology, Jais, Amethi. It was attended by a total of 60 participants including 6 students & a faculty member from each of the 7 participating FIPI Student Chapters and volunteers from the host institute. The participating chapters are IIT-Guwahati, JNTUK, PDEU, IIT-ISM, Dibrugarh University, UPES and RGIPT. The theme of the Convention was "Pathways for Hydrocarbon Industry in its Journey towards Net Zero." Six students, namely **Nedunuri Ricky Jacinth, Sambangi Saitejeswara Rao, Kadiyala Jahnavi, Abhinav Uppada, Chennamsetti Jyotsna Latha, and Guttula Varun Kumar**, accompanied by faculty advisor **Prof K. V.**

Rao, had the privilege to participate in the 12th FIPI Convention. During the event, they showcased their academic prowess by delivering two compelling presentations, which led them to be recognized as the runners-up for the best theme presentation. The chapter was honored with a prestigious memento and awarded a cash prize of 25000 rupees. This remarkable achievement not only highlights their dedication and hard work but also underscores their exemplary teamwork and academic excellence.

Glimpses of the event:

