



Jawaharlal Nehru Technological University, Kakinada

University College of Engineering Kakinada (A)

Department of Petroleum Engineering & Petrochemical Engineering

The JNTUK – FIPI Student chapter provides different several professional, social and cultural activities to enhance different skills among the students. This includes several industrial expert talks during two knowledge sharing sessions , three workshops , faculty development programme.

- 1) On 3rd June 2019 the chapter conducted a Faculty development programme on “**DOWNSTREAM PROCESSING OF OIL AND GAS: PETROLEUM REFINING**”. Where the Inaugural function of this One Week Faculty Development Programme was attended by **Dr. G.V.S.R. Deekshitulu** Director, FDC, JNTUK as the Chief Guest, **Prof. P. Subba Rao** Principal, UCEK (A), JNTUK and **Shri R. Rajamani** Former Managing Director, MRPL, Mangalore as the as the Guests of Honours.
- 2) On 19.07.2019, 3rd Foundation Day Celebrations of JNTUK FIPI Student Chapter was celebrated with active participation of the students with enthusiasm. Many events like Elocution, Quiz, Essay Writing and games like badminton, cricket, throwball, running were conducted and the winners were awarded with certificates. The celebration started with University Song of JNTUK followed by the speeches of dignitaries. The annual report (2018-19) and future plan (2019-20) for the JNTUK FIPI Chapter had been presented. The chief guest of the celebrations **Shri Ajay J Meshram** Group General Manager (P) HPHT Asset, ONGC and Distinguished Guest **Shri T. K. Ramaiah** Head, Subsea Maintenance Reliance Industries Ltd. Petroleum Business (E & P) O & M, Kakinada & Secretary, SPE Kakinada Section graced the occasion.



Shri Ajay J Meshram



Group photo of the foundation Day

- 3) On 01-08-2019, A knowledge sharing session on “WEALTH OF ANDHRA PRADESH” was organised and a lecture was delivered by **Dr. KVSG MURALI KRISHNA** ,Professor of Civil Engg ,UCEK , JNTUK and also the Founder Principal UCEN JNTUK. The lecture has been useful to students and faculty to enhance their domain & other technical knowledge to improve their understanding of societal and professional requirements, especially to bring awareness and develop environmentally friendly technologies,and the carrer prospects The students have been inspired and motivated by the presence of Dr. KVSG MURALI KRISHNA.



Dr. KVSG MURALI KRISHNA



Memento Presentation

- 4) On 08-08-2019, A knowledge sharing session on “Best Practices in Energy Conservation in Fertilizer Industry” was organised and a lecture was delivered by an industrial expert **Shri P. Chandramohan** General Manager (Technical Services) NFCL, Kakinada.It was held at Seminar Hall, Dept. of PE & PCE,UCEK(A).



Shri P. Chandramohan



Memento Presentation

- 5) On 17.09.2019, DECENNIAL CELEBRATIONS of Department of PE & PCE was celebrated in a grand manner. Many events like Quiz, Essay Writing, Elocution and games like cricket, throwball, badminton, running were conducted and the winners were awarded with certificates. The celebration started with University Song of JNTUK followed by the speeches of dignitaries. The chief guest of the celebrations, **Prof. V. V. Subba Rao** Registrar, JNTUK, Guests of Honors **Prof. M. H. M. K. Krishna Prasad** Vice-Principal & TEQIP Co-ordinator, UCEK (A), JNTUK, **Shri G. J. Raj Bob** General Manager (Rtd.), GP – W ONGC, EOA Kakinada, **Shri J. Ravi Srinivas** Vice-President, Sulfur Technologies Worley Parson, Hyderabad graced the occasion. The event was organised by FIPI in association with SPE student chapter.
- 6) On 17th -18th September 2019, Invited lecture on “SOUR GAS HANDLING & SULFUR RECOVERY IN PETROLEUM REFINING” by different Industrial Expert **Mr. J RAVI SRINIVAS** Vice-President, Sulfur Technologies, Worley Parson, Hyderabad for the students was organized Lists of experts and topics are listed below in a table.

09:30 am - 10:00 am	:	Inaugural Session <ul style="list-style-type: none"> • Overview of the Petroleum Refining. • Polluting Emissions (Gas / Liquid / Solid) from Refinery Process Units • Emission Regulations in India /World • Fundamentals of Sour Gas / Sour water generation in Refinery& Conceptualization of handling these Streams
10:00 am - 11:30 am	:	
11:30 am - 11:45 am	:	Tea Break
11:45 am - 01:00 pm	:	<ul style="list-style-type: none"> • Sour Gas absorption and Regeneration & Fundamentals • Amine Basics • ARUs (Amine Regeneration Units) - Design & Operation
01:00 pm - 02:00 pm	:	Lunch Break
02:00 pm - 03:30 pm	:	<ul style="list-style-type: none"> • Sour water handling & Fundamentals • Understanding of Sour water Chemistry • SWSUs (Sour Water Stripping Units) - Design & Operation
03:30 pm - 03:45 pm	:	Tea Break
03:45 pm - 05:15 pm	:	<ul style="list-style-type: none"> • AAG (Amine Acid Gas) & SWAG (Sour Water Acid Gas) Chemistry & Handling • SRU (Sulfur Recovery Unit) Fundamentals • SRU Design & Operation
05:15 pm - 05:30 pm	:	Valedictory Session

- 7) On 28-09-2019, Workshop was held on the “ **Reflections from 9th Convection of FIPI Chapters** “
- 8) On 07th Feb to 08th Feb 2020, Workshop on “**Industrial Safety & Hazard Management**” was conducted and graced by Chief Guest **Dr. B. Balakrishna** Principal, UCEK (A), JNTUK and inaugural lecture was given by the Guests of Honour **Shri M. K. Rao** Former Executive Director, Indian Glycols Ltd. and **Prof. K. V. Rao** Faculty Advisor JNTUK – FIPI Student Chapter. workshop was preceded by **Dr. D. Lingaraju** Head, Dept. of PE & PCE, UCEK (A), JNTUK. The Schedule of the Workshop was given in the table below

Date	Time	Lecture	Topic / Subject	Resource Person
07.02.2020	10:00 am to 01:00 pm	Lecture – I	<ul style="list-style-type: none"> • Overview of Safety, • How to enhance Safety Performance? 	Shri M. K. Rao
	02:00 am to 05:00 pm	Lecture – II	Occupational Safety and Health Administration: Human Exposures – Class of Toxicity – Harmful Concentrations of Chemicals – AGGIH & OSHA Exposure limits – Industrial Hygiene Identification, Evaluation & Control.	Prof. K. V. Rao
08.02.2020	10:00 to 01:00	Lecture – III	Process Safety Management (PSM) – Part 1 <ul style="list-style-type: none"> • Why Process Safety & Process Safety Management (PSM)? • Elements of PSM 	Shri M. K. Rao
	02:00 to 05:00	Lecture – IV	Toxic Release & Dispersion Models – Case Studies and Release Mitigation. Fires and Explosions – Designs to Prevent Fires and Explosions.	Prof. K. V. Rao
09.02.2020	10:00 to 01:00	Lecture – V	Process Safety Management (PSM) – Part 2 <ul style="list-style-type: none"> • More on key PSM elements <ul style="list-style-type: none"> ➤ Process Safety Information (PSI) ➤ Management of Change (MOC) ➤ Process Hazard Analysis (PHA) • Measuring Process Safety 	Shri M. K. Rao
	02:00 to 05:00	Lecture – VI	Hazard Identification: DOW & MOND Indices – Process Hazard Checklists – HAZOP and other Methods. Risk Assessment: Review of Probability Theory – Event & Fault Trees – QRA	Prof. K. V. Rao

9) JNTUK FIPI Chapter arranged industrial visits to various Industrial Units and Research Centre located at different parts of India. It was a great privilege for the III-year petrochemical Engineering students to visit and understand industrial environment and culture, process technologies, various types of equipment and safety practices. The tour had taken place for two weeks (17-11-2019 to 01-12-2019). The list of industries visited are shown below.

18-11-2019	HPCL (Mumbai refinery)
18-11-2019	Deepak Fertilisers and Petrochemicals corporation Ltd
19-11-2019	BPCL (Mumbai refinery)
22-11-2019	Gujarat State Fertilizers & Chemicals Ltd
28-11-2019	BPCL R&D



HPCL



Deepak Fertilisers and Petrochemicals corporation Ltd

10) The FIPI Student chapter also organised a local field visit to **Coromandel international Ltd, Kakinada** on 3rd August 2019.



Coromandel international Ltd, Kakinada

11) The skill development program was planned for 15 days from dec 7, 2020 to dec 23, 2020 to give the students a chance to learn and interact with the experts from various refinery and petrochemical operations. The Chief Guest of the Inaugural session **Padmavibhushan Prof. M. M. Sharma** Emeritus Professor of Eminence, ICT, Mumbai.

Distinguished Guest **Dr. B. Balakrishna Principal**, UCEK (A), JNTUK Guests of Honour **Dr. M.H.M. Krishna Prasad** Vice- Principal & Coordinator TEQIP – III UCEK (A), JNTUK and **Prof. K. V. Rao** Faculty Advisor, SPE & FIPI Student Chapters – JNTUK. About 35 lectures were held with various professionals and industrial experts around the country. The skill development program for petrochemical engineering consisted of the lectures related to various blocks in the refinery, the major petrochemicals that are ruling the petrochemical market, waste water treating units and the most important aspect of any industry that is the safety. The skill development program was truly a very good chance to learn and interact with the experts and we have made the best out of it.

The detailed schedule of the skill development programme which was conducted on the online platform was displayed below

Programme schedule	Date & Time	Resource Person / Speaker
Day – 1	07.12.2020	
Overview of Petroleum Refining	11:15 – 1:15	Shri B. Ramakrishna Sr. Manager – Technical, HPCL
Introduction to Petroleum Refinery Operation and Petroleum Products	03:00 – 05:00	Shri B. Ramakrishna Sr. Manager – Technical, HPCL
Day – 2	08.12.2020	
Atmospheric Distillation of crude Oil	09:00 – 11:00	Shri Sudhir Anamanamuri Sr. Manager – Technical, HPCL
Vacuum Distillation Crude Oil	02:00 – 04:00	Shri Sudhir Anamanamuri Sr. Manager – Technical, HPCL
Day – 3	09.12.2020	
Visbreaking	09:00 – 11:00	Shri Sudhir Anamanamuri Sr. Manager – Technical, HPCL
FCC – I	02:00 – 04:00	Shri Binoy Das Sr. Manager – Technical, HPCL
Day – 4	10.12.2020	
FCC - II	09:00 – 11:00	Shri M. Neha Asst. Manager – Technical, HPCL
Hydrogen Production	02:00 – 04:00	Shri S. Sushma Asst. Manager – Technical, HPCL
Day – 5	11.12.2020	
Hydrocracking	09:00 – 11:00	Shri K. Prasanth Ch. Manager – Projects Process, HPCL
Hydro-processing - I	02:00 – 04:00	Shri S. Sushma Asst. Manager – Technical, HPCL

Day – 6	12.12.2020	
Hydro-processing - II	09:00 – 11:00	Shri J. Srinivasa Rao Manager – Technical, HPCL
Catalytic Reforming	02:00 – 04:00	Shri D. Appala Raju Sr. Manager – Technical, HPCL
Day – 7	14.12.2020	
Processing of Bottom of the Barrel - Coking	09:00 – 11:00	Shri K. Prasanth Ch. Manager – Projects Process, HPCL
Merox Process and Hydro Desulphurization of Products	02:00 – 04:00	Jeejo Francis Correya Sr. Manager – Technical, HPCL
Day – 8	15.12.2020	
Acid Gases Removal from Refinery Gases	09:00 – 11:00	Shri B. Venkata Siva Sr. Manager – Technical, HPCL
Sulfur Recovery	02:00 – 04:00	Shri V. B. Aneesh Sr. Manager – Technical, HPCL
Day – 9	16.12.2020	
Effluent Treatment	09:00 – 11:00	Shri T. Hemant Desai Sr. Manager – Technical, HPCL
Fire Heaters	11:15 – 01:15	Jeejo Francis Correya Sr. Manager – Technical, HPCL
Heat Exchanger	03:00 – 05:00	Shri B. Sreekanth Manager – Technical, HPCL

Day – 10	17.12.2020	
HSE in Refinery Operations	09:00 – 11:00	Shri S.N.R. Suresh Reddy Ch. Manager – Safety, HPCL
Overview of Petrochemical Industry in India	11:15 – 01:15	Dr. R. V. Jasra, Senior Vice-President, RIL
Feed Stocks for Petrochemicals and building Blocks for Chemicals	03:00 – 05:00	Shri A. Rajasekhar, CEO, PRENTAC, Bangalore
Day – 11	18.12.2020	
Naphtha Cracking	09:00 – 11:00	Resource Person from RIL
Gas Cracking	11:15 – 01:15	Dara Vijay Kumar, Equate Chemicals, Kuwait
Deep Catalytic Cracking	03:00 – 05:00	Shri J. Ravi Srinivas Expert in Petroleum Processes, Abu Dhabi
Day – 12	19.12.2020	
Manufacture of Polyethylene & Polypropylene	09:00 – 11:00	Shri Gunasekaran Sivalingam, Senior Manager, Polymers, SABIC Research Center, Bangalore

Manufacture of Ethylene Oxide & Ethylene Glycol	11:15 – 01:15	Shri Sushil Kumar
Production of Ethyl Benzene & Styrene	03:00 – 05:00	Dr. S. V. Praveen, Director(Retd.), LG Polymers
Day – 13	21.12.2020	
Production of Polystyrene	09:00 – 11:00	Shri S. V. Praveen, Director(Retd.), LG Polymers
Manufacture of VCM and PVC	11:15 – 01:15	Shri Vijay Kumar Menon, Reliance Industries
Lunch Break	-	
Production of Aromatics	03:00 – 05:00	Shri P. M. Rao, Expert in Aromatics Technology, Kuwait
Day – 14	22.12.2020	
Production of LDPE	09:00 – 11:00	Shri Muni Rambabu Singapore
Natural Gas Reforming & Manufacture of Ammonia: Challenges	11:15 – 01:15	Shri Ch. Sivarama Krishna, AGM(Process Engg.), NFCL, Kakinada
Natural Gas Processing	03:00 – 05:00	Shri J. Ravi Srinivas Expert in Petroleum Processes, Abu Dhabi
Day – 15	23.12.2020	
Waste Water Treatment	09:00 – 11:00	Shri D. Rama Raju, Expert in Waste Water Treatment, Vizag Steel.
Process & Behavioral Safety	11:15 – 01:15	Shri Cheluva Kumar Ex-Shell, Independent Consultant, Prentac, Bangalore
Valedictory Function	03:00 – 03:30	-

12) Five Swachh Bharat Clean & Green India Programmes were conducted by members of FIPI Chapter to clean the class rooms besides the premises of the department of PE & PCE in academic year 2019-20. To enhance the greenery in front of the department, plantation programs were also organized.

- 2nd July,2019
- 7th August,2019
- 13th November,2019
- 4th December,2019
- 6th February,2020



Tree plantation

13) Two outreach programs of teaching to school children at Parivarthana Children Orphanage, Kakinada With the motto of sustainable socio Economic development for under Privileged children to bring awareness in career and inspiring them to achieve their goals.



Outreach programs