

Venkatapur(V), Ghatkesar(M), Hyd-500088 Phone: 084999 63666 www.anurag.edu.in

# DEPARTMENT OF CHEMICAL ENGINEERING



# DEPARTMENT ACTIVITIES FOR THE ACADEMIC YEAR 2020-21

# **INDEX**

S	Activity	Dates	Page No.s
No.			
1.	Guest Lecture was conducted by Smt. Sheela, Deputy Chief Executive (Retired), Nuclear Fuel Complex, Department of Atomic Energy, GOI, Hyderabad, on the topic "Engineers and Atomic Energy in service to society".	5 <sup>th</sup> June 2021 from 10.00 am to 11.30 am through online mode	4-5
2.	Indian Institute of Chemical Engineers – Hyderabad Regional Centre (IIChE – HRC) in collaboration with Department of Chemical Engineering, Anurag University, Hyderabad has organized Inter-College Competitions. The following are the competitions conducted:  1. Technical Quiz 2. Essay Writing 3. Elocution	5 <sup>th</sup> June, 2021 from 10:00 AM onwards through virtual mode	5-9
3.	Orientation day was conducted	30 <sup>th</sup> April 2021	9
4.	Training was conducted for students by Gyanway Global Solutions Pvt. Ltd., on the topic "DWSIM-Open-source simulation software" and total 41 students have registered for this training.	During 20 <sup>th</sup> February to 17 <sup>th</sup> May 2021	10-18
5.	Department of Chemical Engineering has received a grant of Rs. 3,00,000/- from AICTE, New Delhi to conduct Online Short-term training programme (STTP) on the topic "Industrial Pollution & Control Strategies" and AICTE Sponsored 3-STTP's were conducted.  STTP-II  STTP-III	24 <sup>th</sup> -29 <sup>th</sup> August 2020 5 <sup>th</sup> -10 <sup>th</sup> October 2020 23 <sup>rd</sup> -28 <sup>th</sup> November 2020	19-48
6.	Department of Chemical Engineering has organized Impromptu Speaking contest and Student Panel discussion	18 <sup>th</sup> – 19 <sup>th</sup> August 2020	48-49

7.	Dr. M. Mukunda Vani has been awarded with Lupin Industries "Best Chemical Engineering Teacher Award" by Indian Institute of Chemical Engineers at CHEMCON 2020	During 27 <sup>th</sup> - 29 <sup>th</sup> December 2020	50
8.	41 students have completed Online Internships conducted by IIChE		50-52
9.	04 faculties and 05 students have certifications by NPTEL  16 students have received appreciation certificates for their participation in various events		52-55
10.	03 programs are conducted under NSS		55-57
11.	30 students are offered placement by various industries/companies		57-58
12.	8 Journal publications 4 conference publications 2 book chapters and 3 patent publications		59-63
13.	49 Faculty have attended Workshop/Seminar/FDP etc.		64-70

#### 1. Guest Lecture

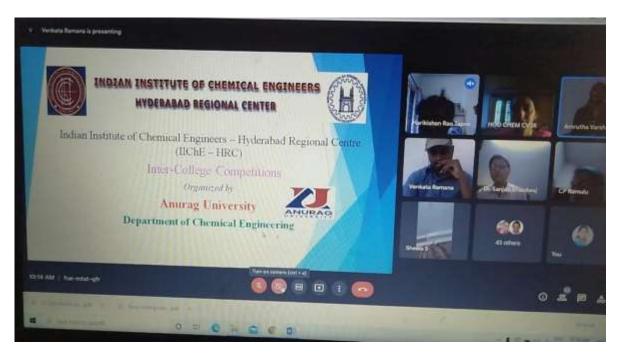
S.No.	Name of person with designation	Name of the topic	Date and venue
1.	Smt. Sheela, Deputy Chief Executive (Retired), Nuclear Fuel Complex, Department of Atomic Energy, GOI, Hyderabad.		5 <sup>th</sup> June 2021 from 10.00 am to 11.30 am through online mode

Indian Institute of Chemical Engineers – Hyderabad Regional Centre (IIChE – HRC) in collaboration with Department of Chemical Engineering, Anurag University, Hyderabad organized Inter-College Competitions on 5<sup>th</sup> June, 2021. The program was conducted online mode through G-Meet platform with nearly 100 participants. The program was started at 10:00 AM with welcome speech by Dr.Sanjay Bhardwaj, Chairman, IIChE-HRC.

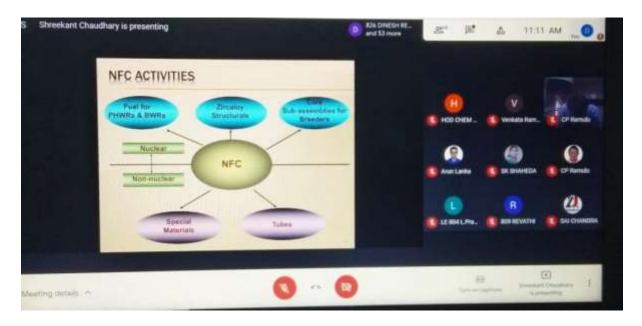


Welcome address by Dr.Sanjay Bhardwaj, Chairman, IIChE-HRC.

After welcome address a lecture was given by Smt Sheela, Deputy Chief Executive (Retired), Nuclear Fuel Complex, Department of Atomic Energy, GOI, Hyderabad on the topic "Engineers and Atomic Energy in service to society". The speaker was introduced by Dr.M.Mukunda Vani, Head, Department of Chemical Engineering, Anurag University.



Dr.Mukunda Vani introducing the speaker Smt Sheela Deputy Chief Executive(Retired), NFC, Hyderabad.



Lecture by Smt Sheela on the topic "Engineers and Atomic Energy in service to society"

## 2. IIChE Inter-college Competitions

Indian Institute of Chemical Engineers – Hyderabad Regional Centre (IIChE – HRC) in collaboration with Department of Chemical Engineering, Anurag University, Hyderabad has

organized Inter-College Competitions on  $5^{th}$  June, 2021 from 10:00 AM onwards through virtual mode. The following are the competitions:

- 1. Technical Quiz
- 2. Essay Writing
- 3. Elocution

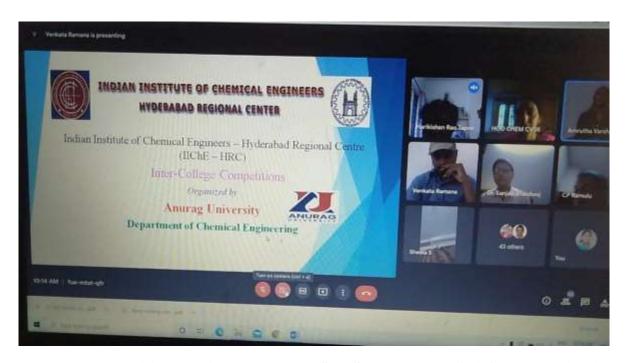
## **REPORT**

Indian Institute of Chemical Engineers – Hyderabad Regional Centre (IIChE – HRC) in collaboration with Department of Chemical Engineering, Anurag University, Hyderabad organized Inter-College Competitions on 5<sup>th</sup> June, 2021. The program was conducted online mode through G-Meet platform with nearly 100 participants. The program was started at 10:00 AM with welcome speech by Dr.Sanjay Bhardwaj, Chairman, IIChE-HRC.



Welcome address by Dr.Sanjay Bhardwaj, Chairman, IIChE-HRC.

After welcome address a lecture was given by Smt Sheela, Deputy Chief Executive (Retired), Nuclear Fuel Complex, Department of Atomic Energy, GOI, Hyderabad on the topic "Engineers and Atomic Energy in service to society". The speaker was introduced by Dr.M.Mukunda Vani, Head, Department of Chemical Engineering, Anurag University.



Dr.Mukunda Vani introducing the speaker Smt Sheela Deputy Chief Executive(Retired), NFC, Hyderabad.



Lecture by Smt Sheela on the topic "Engineers and Atomic Energy in service to society"

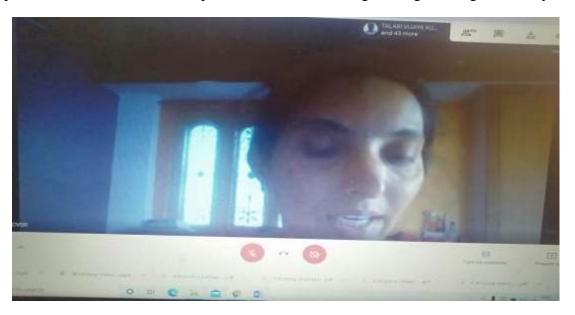
Inter-College Competitions were started after a break of 15 min at 11:30 AM. Essay writing competitions were held from 11:30 AM to 12:30 PM with 22 participants from reputed institutes: BVRIT, Anurag University, CBIT, OUCT, JNTUH, JNTUA, BITS, and NITW. The topic for Essay writing was "Scope for chemical engineers as entrepreneurs and for start-ups". Essay

writing competitions were judged by Sri Arun Kumar and Sri Baidurjya Nath, EC members, IIChE-HRC.

Elocution competitions were held from 11:30 AM to 1:00 PM with 19 participants from reputed institutes: BVRIT, Anurag University, CBIT, OUCT, JNTUH, JNTUA, and NITW. The topic for Elocution was "Scope of chemical engineering in dealing with the current COVID 19 pandemic". Elocution competitions were judged by Dr.A.Gangagni Rao, Chief Scientist, IICT, Sri C.P. Ramulu, Vice Chairman, IIChE-HRC and Prof Shashikala, OUCT.

Technical quiz competitions were held from 2:00 PM to 4:00 PM with 24 participants from reputed institutes: BVRIT, Anurag University, CBIT, OUCT, JNTUH, JNTUA, BITS and NITW. Technical quiz competitions was judged by Dr.Vineet K. Aniya, EC member, IIChE-HRC.

After completion of the competitions valedictory session was started at 4:00 PM. A brief report on Inter-College Competitions was given by Dr. M. Mukunda Vani, Co-Convener, Student Chapters, IIChE – HRC, HOD, Department of Chemical Engineering, Anurag University.

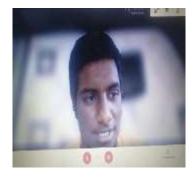


Report by Dr.M.Mukunda Vani, Co-convener, student chapters, IIChE-HRC

After report on Inter-College Competitions by Dr.M. Mukunda Vani, feedback was given by participants from different colleges: CBIT, Anurag University, JNTUA etc







Feedback by participants on Inter-College Competitions

The program was concluded by Vote of Thanks by Sri S. Ilaiah, Assistant Professor, UCT, OU, Hyd.



# 3.Orientation program was conducted on 30<sup>th</sup> April 2021

Orientation program was conducted on 30<sup>th</sup> April 2021 for first year chemical engineering students. Total 50 students and parents were present during the program. Head of the department Dr. M. Mukunda Vani presented the department overall activities conducted during the academic year and also the various department achievements, faculty and student achievements were discussed. Parents and students interacted with the faculty and head of the department and the awareness and prospects about the chemical engineering were discussed.

## **4. Training Program**

S No.	Name of person with designation	Name of the topic	Date and venue	No. of Students
1.	Gyanway Global Solutions Pvt.	"DWSIM- Open source simulation	During 20 <sup>th</sup> February to 17 <sup>th</sup> May 2021	41
	Ltd.	software"		

# **DWISIM Training programme conducted by Gyan way for batches-2022,2021**

To support the digital learning platform, highly qualified professionals from esteemed organizations and students from prestigious colleges (IITs, NITs, BITS etc.) joined hands and started new Edutech venture 'Gyanway''.

Working Areas by Gyan way

- 1. Online teaching
- 2. Software support
- 3. Professional support
- 4. Technical and non-technical tie-ups

# DWSIM Training Course stated from 20-02-2021 to 17-05 –2021 for final year and selected students in ONLINE mode

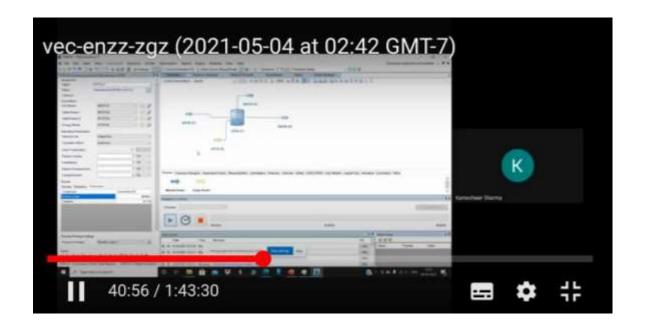
#### **Teaching Team**

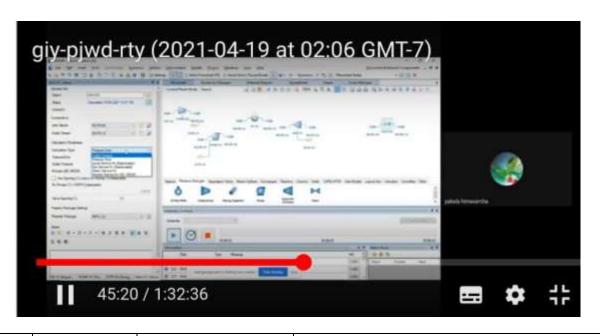
- 1.Sai Hitesh Scientist, Aditya Birla Group and Lead, Gyanway.
- 2. Kameshwar Sharma Ex Design Engineer, UOP Honeywell and tutor internationally at Gyanway.
- 3. Ayush Bhavsar M.Tech, IIT Madras, Tutor internationally at Gyanway.
- 4. Himavarsha M.E, BITS Pilani, Tutor internationally at Gyanway.

# **Course Structure:**

S.No	Name	Lecture Description	Time Duration
1	Introduction to Aspen	• Basic introduction of Aspen plus /HYSYS. • Scope of Aspen plus/HYSYS. • Getting started with Aspen User interface • Adding Components, Fluid Packages, Material Streams • Introduction to physical property environment. • Determination of Properties of compound in Aspen	3
2	Introduction to Flow sheeting	• Introduction to the simulation environment and flowsheets. • Manipulation and modification of flowsheets	2
3	Introduction to Reportin	• How to get Results, modify units. How to add/remove Streams form database. Default and Template Reportin	1
4	Physical Property Environment	Introduction and necessities of several property methods. • Classification of modeling (Ideal and Nonideal) • Detailed explanation of Equation of state (Peng Robinson (PR) and activity coefficient (UNIFAC, NRTL) methods. • Workshop on Equation of state and activity coefficient methods. • Introduction to Property sets • Demonstration of defining own property sets. • Introduction to various single point and multiple point analysis tools. • Workshop on single and multiple point analysis. • Introduction to T-xy and P-xy diagrams. • Workshop on T-xy and P-xy diagrams.	4
5	Aspen simulation using various industrial unit operations	• Introduction and Simulation of Mixer and Splitter models using Aspen Plus. • Introduction and Simulation of Heat Exchanger using Aspen Plus. • Introduction to various types of reactors and simulation using Aspen Plus. • Introduction to several columns and simulation of Flash column, distillation column, absorbers, and liquid-liquid extraction. • Introduction to various types of pumps, turbines, compressors, and valves. • Simulation of single stage	10

		and multistage compressors, turbines, valves, and pumps.	
6	Analysis tools for the model	• Introduction to model analysis tools. • Workshop on Stream, Block and Results summary. • Introduction and workshop on addition of T/P/M labels on flowsheet. • Introduction to several tools in plotting data. • Introduction to performing sensitivity analysis and plotting sensitivity analysis results. • Introduction to functions for optimization and constraints. • Workshop on Optimization of Product Yield in Equilibrium and Gibbs Reactor.	11
2	Case studies	• Introduction to several case studies and outcomes. • Case study 1: Hydro alkylation of Toluene. • Case study 2: Simulation of Nitric oxide plant. • Case study 3: Simulation of Isobutene process.	11
	Assigments		





S.No	Date	Lecture Number	Link
1	20-02-2021	Lec-1	https://drive.google.com/file/d/152atBpB2gyJKIf AnQyoDV56qdUyqU6Ru/view?usp=sharing
2	22-02-2021	Lec-2	https://drive.google.com/file/d/1ssA7lZwjB6ZrE fTf6oaMWXToEJ1FjJon/view?usp=sharing
3	25-02-2021	Lec-3	https://drive.google.com/file/d/1m33oNdTWidPucE9Jddih1WyhQKZN7KYf/view?usp=sharing
4	27-02-2021	Lec-4	https://drive.google.com/file/d/1SKMXVi5nJ9L TK46LdSUd6noNwKXFzFpR/view?usp=sharin g
5	01-03-2021	Lec-5	https://drive.google.com/file/d/1f1PY_ALr8Adu Mdj2_HIIWMAKpe25KZuP/view?usp=sharing
6	04-03-2021	Lec-6	https://drive.google.com/file/d/166SvzAZxnewu 3Id-9hwpNj7hHdD_qywF/view?usp=sharing
7	06-03-2021	Lec-7	https://drive.google.com/file/d/1G51DyBhaLAG qJSv_kDVyNpzq5OOt20IX/view?usp=sharing
8	19-04-2021	Lec-8	https://drive.google.com/file/d/1TCa8ot5o3N0tx M1PohsEI5e0qHMWmeK1/view?usp=sharing

9	20-04-2021	Lec-9	https://drive.google.com/file/d/1YLCKVHmGRu DZgM_Q4dDdQ_VJoMrviZhD/view?usp=shari ng
10	26-04-2021	Lec-10	https://drive.google.com/file/d/1s44GPmy9Dot WLVWd_b0dYi8XfUWsx0cR/view
11	27-04-2021	Lec-11	https://drive.google.com/file/d/1q-kdZ4KdfYAYVOUSGK1rmB5LzaEwiYKR/view?usp=sharing
12	03-05-2021	Lec-12	https://drive.google.com/file/d/11KX25MK4L9C RewYx_WPtig9SqIM0YaMx/view
13	04-05-2021	Lec-13	https://drive.google.com/file/d/19pDY31TqxW_ JO8pOj10kIWfgoHG5CBu1/view
14	10-05-2021	Lec-14	https://drive.google.com/file/d/17uGHsaUQlny2 qqfbfTV5GnIVDiOhKWNE/view
15	11-05-2021	Lec-15	https://drive.google.com/file/d/18wvs0v7YAq3k MiPXCYHvQgEr08mjWDYy/view
16	17-05-2021	Lec-16	https://drive.google.com/file/d/1V4E2icRy3WeY kSR3QaoCbdQ6USnwFZ4u/view

# <u>Total Number of Students Participated in training Prgrogrmme-41</u>

# **Students List**

# **DWSIM –IV .Btech Names List**

S.No	Roll number	Name of The Student
1	17H61A0801	ABDUL HADI ALI KHAN
2	17H61A0804	ANASURI SUMANTH
3	17H61A0808	CAROLINE WESLEY
4	17H61A0812	GAYATHRI RAVI S
5	17H61A0813	J SANKEERTHANA
6	17H61A0814	JAIKISHAN CHANDARANA
7	17H61A0818	KOLIPAKA PRASAD REDDY

# III Names

8	17H61A0830	PALUSAM NIKHILA
9	17H61A0832	POOJA PUROHIT
10	17H61A0834	RITHVIK BHARGHAV M
11	17H61A0835	S SUSHMITHA
12	17H61A0838	SREE AMRUTHA VARSHINI R
13	17H61A0839	SYED RASHID IQBAL
14	17H61A0840	T SRI VAISHNAVI
15	17H61A0843	VAISHNAVI PAMMI
16	17H61A0844	YASSER MIRZA BAIG
17	18H68A0801	C SARITA

DWSIM – .Btech List

1 /	101100/10001	Contain
S.No	Roll number	Name of The Student
1	18H61A0801	ABHIRAM SUBRAMANIAN
2	18H61A0804	ANKAM NAVYASRI
3	18H61A0806	BARLA SAISIDDHARTHA
4	18H61A0808	B DURGA PRASAD
5	18H61A0811	D BHASKAR SHARAN
6	18H61A0813	E SUNANDA
7	18H61A0815	G SAROHITH REDDY
8	18H61A0816	GONA MEGHANA
9	18H61A0817	G BHAVIK
10	18H61A0818	G SHYAM SUNDER REDDY
11	18H61A0819	J HARIKA
12	18H61A0821	K KAVYA
13	18H61A0826	M DRAKSHAYINI
14	18H61A0828	P SAI TEJA
15	18H61A0830	P VINAY
16	18H61A0831	P .L.C.SAIKIRAN
17	18H61A0832	MAHITHA KAMBHAMPATI
18	18H61A0834	REDDY GHANA SYAM
19	18H61A0836	S SABA FARHEEN
20	18H61A0837	SOREDDY ANIL REDDY
21	18H61A0838	S SRIDHAR
22	18H61A0842	T NARESH
23	18H61A0843	B SHARAN KUMAR
24	18H65A0801	AMBEDKAR

# Projects offered to students after completion of course

S.N	Yea	Te	Name of the	Project Titles	
0	r	am	Students		
1	III	1	A.Navyasri	<b>Project 1:</b> Enhancement of LNG Liquefaction process using SMR cycle.	
2			J.Harika		
3			K.Kavya	Problem Statement: This study is to examine the enhancement of the natural gas liquefaction using Single Mixed Refrigerant.	
4			M.Drakshayini	Thermodynamic study of various liquefaction process for LNG and energy consumption evaluation is to be done.	
5			G.Ambedkar	Reference: Pham, T.N., Long, N.V.D., Lee, S. and Lee, M., 2017.	
6			B.Durga Prasad	Enhancement of single mixed refrigerant natural gas liquefaction process through process knowledge inspired optimization and modification. <i>Applied Thermal Engineering</i> , 110, pp.1230-1239.	
7	III	2	T.Naresh	Project 2:	
8			P.L.CSai kiran	Process gas from a system at 1.05 bar absolute pressure and 40°C has the following flowrate and composition.	
9			B Sharan kumar		
10			G.Meghana	Molar flowrate (kmol/hr) Composition (mol%)  H <sub>2</sub> 43 91.5	
11			Reddy	CH <sub>4</sub> 3 6.4 NH <sub>3</sub> 1 2.1	
			Ghanasyam	Total 47 100.0	
12			Soreddy Anil	<b>Desired output</b> – Ammonia content in this gas is to be reduced to 50	
			Reddy	ppm (mole basis). A suitable implementable scheme to be evolved to	
				treat the above process gas to achieve the desired reduction in	
				ammonia content.	
13	III	3	E.Sunanda	Project 3: Problem Statement:	
14			Shaik Saba		
			Farheen	Monochlorobenzene is an important derivative of benzene which acts as a precursor to such chemicals as nitrochlorobenzenes and phenols.	
15			Srishti Sridhar	Even though the use of monochlorobenzene in agrochemicals is declining due to evironmental concerns and its carcinogenic nature, it	
16			Mahitha Kambhampati	enjoys wide applications in rubber, plastics, pharmaceuticals, dyes and pigments.	

17			G. Sharohith Reddy	Controlled chlorination of benzene with chlorine in liquid phase in 20- 40 deg C gives selective conversion to monochlorobenzene in
18			P. Vinay	presence of a suitable metal catalyst. Commonly, Ferric Chloride and Iron raschig rings are used as the catalyst. In that case, the reported conversion (per-pass) is 75% monochlorobenzene and 22% dichlorobenzene with para and ortho derivatives in the ratio 3:2. This information is used in the conversion reactor data.
19	III	4	D.Bhaskar Sharan	Project 4: Problem Statement:
20			G. Bhavik	Production of Furfuryl Alcohol from furfural.
21			G Shyam Sunder Reddy	
22			Abhiram Subramanian	
23			P Sai Teja	[B]———
24			B.Sai Sidhartha	
25	IV	5	C.Jaikishan	Project 5: Problem statement:
26			M.Rithvik	11000000
			Bhargav	Design Bio-ethanol dehydration by Extractive Distillation in DWSIM to get 99.6 % wt/wt purity of ethanol using solvent ethylene glycol &
27			J.Sankeerthana	propylene glycol. Compare results of both the solvents. Recycling of the solvent to be introduced to minimize the use of fresh solvent hence
28			K.Prasad Reddy	reducing the OPEX. <b>Given:</b> Feed flowrate = 10,000 kg/hr. (Ethanol- 0.05 % wt/wt &
29			T.vaishnavi	Water- 0.95 % wt/wt)
30			Vaishnavi Pammi	Temperature – 40 <sup>0</sup> C  Pressure – 1 bar
31			Pooja Purohit	Tressure – Toai
32			P.Nikhila	
33	IV	6	A.Sumanth	Project 6: Problem statement:
34			S.Gayathri Ravi	1 Tobiciii Statement.
35			S.Sushmitha	

36		C.Saritha	Design Bio-ethanol dehydration by Azeotropic Distillation in DWSIM getting 99.6 % wt/wt purity of ethanol using cyclohexane &		
37		Caroline Wesley	pentane. Compare results of both the solvents. Recycling of the solvent to be introduced to minimize the use of fresh solvent hence reducing the OPEX.		
38		Syed.Rashid Iqbal			
39		Addul Hadi Alikhan	Given: Feed flow rate= 10,000 kg/hrs. (Ethanol- 0.05 % wt/wt & Water- 0.95 % wt/wt)  Temperature – 40 <sup>o</sup> C		
40		Yassar Mirza			
		Baig	Pressure – 1 bar		
41		Amrutha Varshini			

Cerficates Offered to all participated students-41

# Example



#### 5. AICTE Sponsored 3- STTP's

S.No.	Details of STTP's	Name of the topic	Date and venue
1.	AICTE Sponsored Short Term Training Programme-I (STTP-I)	Industrial Pollution & Control Strategies	24 <sup>th</sup> -29 <sup>th</sup> August 2020
2.	AICTE Sponsored Short Term Training Programme-I (STTP-II)	Industrial Pollution & Control Strategies	5 <sup>th</sup> -10 <sup>th</sup> October 2020
3.	AICTE Sponsored Short Term Training Programme-I (STTP-III)	Industrial Pollution & Control Strategies	23 <sup>rd</sup> -28 <sup>th</sup> November 2020

## **AICTE Sponsored Short Term Training Programme-I on**

"Industrial Pollution & Control Strategies"

24th -29th August 2020

#### **REPORT**

Department of Chemical Engineering, Anurag Group of Institutions organized AICTE sponsored one week Short Term Training Programme-I (STTP-I) on the topic "Industrial Pollution & Control Strategies" during 24<sup>th</sup>-29<sup>th</sup> August 2020. In this STTP-I, 270 participants have participated during this program. It was conducted on zoom meeting platform. Everyday 2 sessions were conducted – Morning and Afternoon from 10.00 am to 12.00 pm and 2.00 pm to 4.30 pm.

The program started with inauguration on 24<sup>th</sup> August 2020 at 10:00 AM with welcome address by Dr. M. Mukunda vani, Convener, STTP-I, HOD, Dept. of Chemical Engineering, Anurag Group of Institutions, Followed by address by Dr.K.S.Rao, Director, Anurag Group of Institutions, Address by Guest of Honour, Dr.Sanjay Bhardwaj, Scientist-F, Team Leader, ARCI, Chairman, IIChE-HRC, Address by Chief Guest Prof.S.Ramachandram, Vice-Chancellor, Anurag University. Vote of Thanks for inaugural by Dr.T.Vijaya Kumar, Co-convener, STTP-I

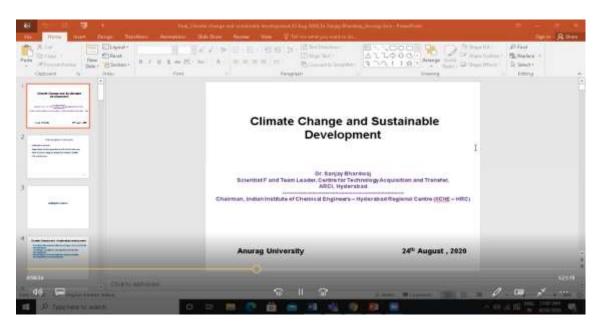


Dr.K.S.Rao, Director, AGI addressing participants during inaugural session



Dr.Sanjay Bhardwaj, Guest of Honour, addressing the participants during inaugural session

Day 1 – Morning Session was conducted by Dr. Sanjay Bharadwaj, Scientist-F, Team leader, ARCI, Chairman, IIChE-HRC on the topic "Climate change and sustainable development". He clearly explained about the climate change and sustainable development aspects.



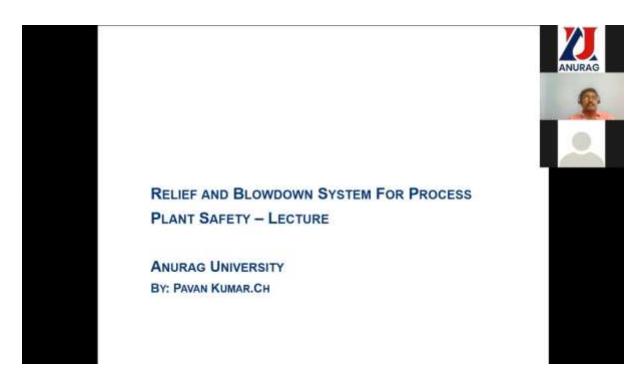
Lecture by Dr.Sanjay Bhardwaj

Day 1- Afternoon Session was conducted by Dr. Sunil Kumar Thamida, Associate Professor, Department of Chemical Engineering, IIT, Tirupathi, A.P. on the topic "Role of Electro Static Precipitators in removing Particulate Matter from polluted Air". Dr.Sunil sir enlightened the participants about the usage of electrostatic precipitators in combating the pollution.



Dr. Sunil Kumar Thamida delivering lecture

Day 2 – Morning Session was conducted by Mr. Pavan Kumar Chellinkula Senior Process Engineer PMEC, Mumbai on the topic "Relief and Blow down Study of Process plants for Process plant safety". Continued with a case study on "Overview of Pressure Safety valves, Flare Network, Knockout drums and Flare /Venting disposal system selection and sizing". Pavan sir focussed on various challenges in Industries regarding safety aspects.



Mr. Pavan Kumar Chellinkula delivering lecture

Day 2- Afternoon Session was conducted by Murari R R Varma, PhD Assistant Professor, Department of Civil Engineering, BITS, Hyderabad on the topic "Environmental Impact Assessment". Murari R R Varma explained about the impact on environment due to the growth in Industrial sector.



Lecture delivered by Murari R R Varma

Day 3 – Morning Session was conducted by Dr. Nagamalleswara Rao K Associate Professor, Centre for Disaster Mitigation and Management VIT, Vellore on the topic "Pollution balance studies in process plant design" followed by a case study on "WAR (Waste Reduction Algorithm) developed by United States EPA (Environmental Protection Agency)". Dr. Nagamalleswara Rao K focused on the various methods implemented Industries on Pollution balance with the application of WAR algorithm.



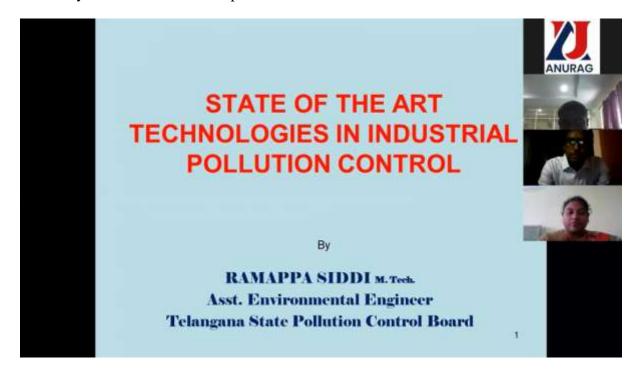
Dr. Nagamalleswara Rao K delivering Lecture

Day 3- Afternoon Session was continued by Dr. Nagamalleswara Rao K Associate Professor, Centre for Disaster Mitigation and Management VIT, Vellore on the case study "Reducing pollution in industries using WAR algorithm". Sir has explained in detail about the various applications of software "ASPEN PLUS"



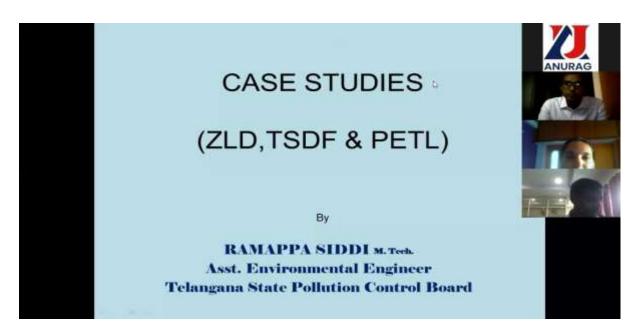
#### Dr. Nagamalleswara Rao K delivering Lecture

Day 4 – Morning Session was conducted by Mr. Ramappa Siddi Assitant Environmental Engineer, Telangana State Pollution Control Board on the topics "State of the art technologies in industrial pollution control" and "Pollution control Acts in India and the amendments". Mr. Ramappa Siddi explained how industries are classified based on pollution emitted and rules and regulations followed by TSPCB to control the pollution.



Mr. Ramappa Siddi delivering Lecture

Day 4 – Afternoon Session was continued by Mr. Ramappa Siddi Assitant Environmental Engineer, Telangana State Pollution Control Board with case study on "Stringent Environmental Policies and the implementation of zero liquid discharge in the bulk drug industries: An Industrial case study."



Mr. Ramappa Siddi delivering Lecture

Day 5 – Morning Session was conducted by Nanda Kishore, Ph.D.Professor, Department of Chemical Engineering, Indian Institute of Technology Guwahati, Assam on the topics "Role of Modelling and Simulation of Hydrodeoxygenation to Upgrade Sustainable Bio-oils Required for Combating Pollution Concerns" Dr. Nanda Kishore sir explained different generations in bio-fuels with respect to their pros and cons.



Dr. Nanda Kishore delivering Lecture

Day 5- Afternoon Session was conducted by Dr. Nagamalleswara Rao K Associate Professor, Centre for Disaster Mitigation and Management VIT, Vellore on the topic "Role of Property estimation of chemical components in pollution control" followed by case study on "Simulation examples for minimizing the pollution in Oil and Gas industries. Sir has explained the design of various reactors based on thermodynamic properties of chemical components using the ASPEN PLUS software.



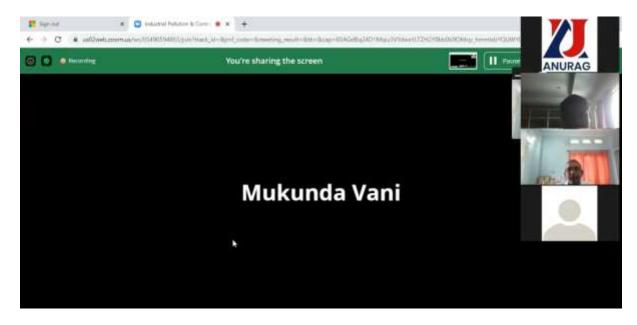
Dr. Nagamalleswara Rao K delivering Lecture

Day 6 – Morning Session was conducted by Mr. Pavan Kumar Chellinkula Senior Process Engineer PMEC, Mumbai on the topic "Process Plant Safety Studies: Overview of Hazard and Operability Studies (HAZOP), Layers of Protection (LOPA), Safety Integrity Functions (SIF) and Safety Integrity Levels (SIL)." Pavan sir focussed on various safety methods followed by Industries to control accidents and pollution caused by hazardous chemicals.



Mr. Pavan Kumar Chellinkula delivering lecture

Day 6 – Afternoon Session was conducted by Nanda Kishore, Ph.D.Professor, Department of Chemical Engineering, Indian Institute of Technology Guwahati, Assam on the topics "Computational Fluid Dynamics Approach for Simulating Multiphase Flow Reactors to Address Industrial Pollution Issues" Dr. Nanda Kishore sir explained simulation studies on multiphase flow reactors using ANSYS software.



Dr. Nanda Kishore delivering Lecture

The Valedictory for AICTE sponsored STTP-I was conducted on 29<sup>th</sup> August 2020 at 4:00 PM. Participants gave their feedback on one week STTP-I program followed by the Report on STTP-I

by Dr.Mukunda Vani, Convener, STTP-I, Address by Chief Guest Prof. Syeda Sameen Fatima, Registrar, Anurag University and vote of thanks by Dr.T.Vijaya Kumar, Co-Convener, STTP-I. STTP-I ended with National Anthem by Vaishnavi Pammi, Final year Chemical Engineering student, Anurag Group of Institutions. The event was a grand success with 270 participants attending live in zoom.



Report on STTP-I delivered by Dr. M. Mukunda Vani, Convener, STTP-I



Prof. Syeda Sameen Fatima, Registrar, Anurag University addressing the participants.

Everyday Lecture material was provided to participants through Whatsapp and Telegram and feedback on each lecture was also collected. Online exam was conducted on the last day of STTP-I on IP&CS and e-certificates were sent to all eligible participants as per AICTE norms.

**AICTE Sponsored Short Term Training Programme-II on** 

"Industrial Pollution & Control Strategies"

5th -10th October 2020

#### **REPORT**

Department of Chemical Engineering, Anurag Group of Institutions organized AICTE sponsored one week Short Term Training Programme-II (STTP-II) on the topic "Industrial Pollution & Control Strategies" during 5<sup>th</sup>-10<sup>th</sup> October 2020. In this STTP-II, 255 participants have participated during this program. It was conducted on zoom meeting platform. Everyday 2 sessions were conducted – Morning and Afternoon from 10.00 am to 12.30 pm and 1.30 pm to 4.00 pm.

The program started with inauguration on 5<sup>th</sup> October 2020 at 10:00 AM with welcome address by Dr. M. Mukunda vani, Convener, STTP-II, HOD, Dept. of Chemical Engineering, Anurag Group of Institutions, Followed by Address by Guest of Honour, Dr.S. Sridhar, Senior Scientist, IICT-hyderabad, Address by Guest of honour Prof. Syeda Sameen Fatima, Registrar, Anurag University, Adress by Guest of honour Col. B. Venkat, Director of FDC, AICTE and Address by Chief Guest Prof.S.Ramachandram, Vice-Chancellor, Anurag University. Vote of Thanks for inaugural by Dr. M. B. Venkata Ramana Reddy, Assistant Professor, Department of chemical engineering, Anurag Group of Institutions.



Col. B. Venkat, Director of FDC, AICTE addressing participants during inaugural session



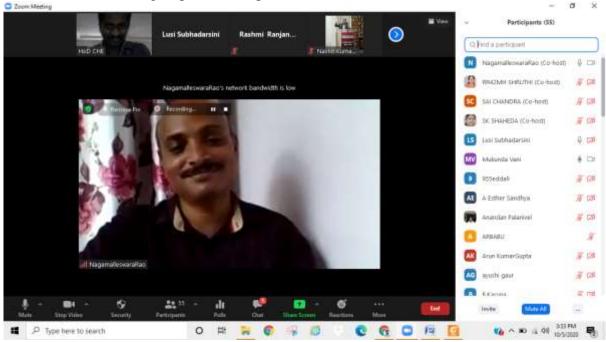
Dr. S. Sridhar, Guest of Honour, addressing the participants during inaugural session

Day 1 – Morning Session was conducted by Dr.S. Sridhar, Senior Scientist, IICT-Hyderabad on the topic "Advanced membrane technology for industrial effluent treatment and air pollution control". He clearly explained about the different membranes for treatment of wastewater and air.



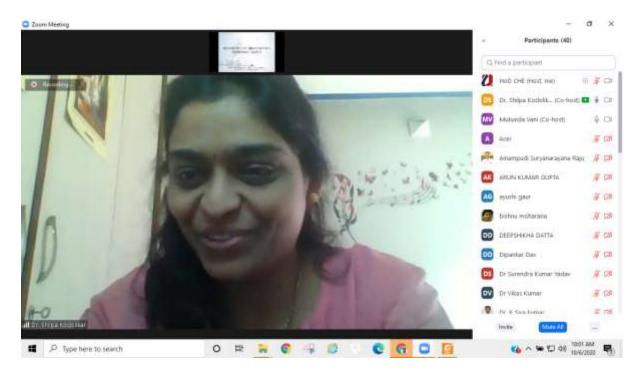
Lecture by Dr.S. Sridhar

Day 1- Afternoon Session was conducted by Dr. K. Nagamalleswara Rao, Associate Professor, Centre for Disaster Mitigation and Management, VIT-Vellore on the topic "Reducing CO<sub>2</sub> emission in process industries using Aspen Plus/Aspen HYSYS (Cut emissions and boost profitability)". Dr. K. Nagamalleswara Rao sir explained the reducing of CO<sub>2</sub> emissions in process industries using Aspen Plus/Aspen HYSYS.



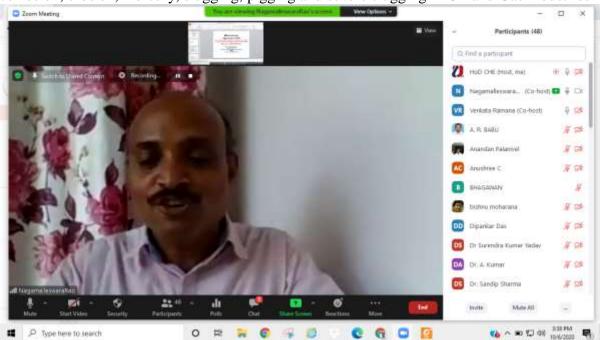
Dr. K. Nagamalleswara Rao delivering lecture

Day 2 – Morning Session was conducted by Dr. Shilpa Kodolikar, Associate Professor, Chemical Engineering Department, MIT College of Engineering, Pune on the topic "Biosorption for heavy metal removal". Dr. Shilpa Kodolikar Madam focussed on various methods for removal of heavy metals.



Dr. Shilpa Kodolikar delivering lecture

Day 2- Afternoon Session was conducted by Dr. K. Nagamalleswara Rao, Associate Professor, Centre for Disaster Mitigation and Management, VIT- Vellore on the topic "Protecting pipelines from the issues like, hydrate formation, wax deposition, corrosion, erosion, mercury, slugging, pigging and severe slugging in Oil and Gas Industries using Aspen HYSYS". Dr. K. Nagamalleswara Rao explained about the issues like hydrate formation, wax deposition, corrosion, erosion, mercury, slugging, pigging and severe slugging in Oil and Gas Industries



#### Lecture delivered by Dr. K. Nagamalleswara Rao

Day 3 – Morning Session was conducted by Mr. Srinivas Moturi Senior Manager, ONGC-MRPL, Mangalore on the topic "Industrial Pollution – Strategy & changing business dynamics in Oil & Gas sector". Srinivas sir focused on the challenges of industrial pollution in oil and gas sector.



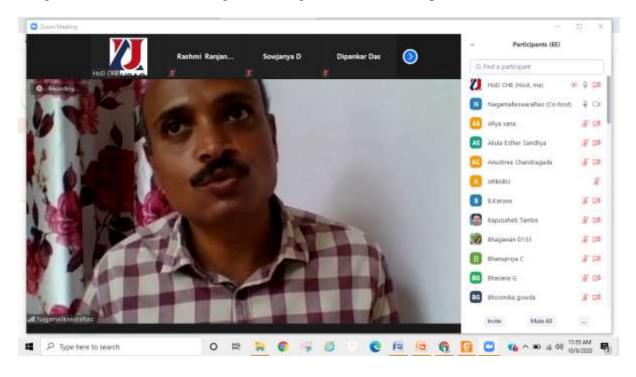
Mr. Srinivas Moturi delivering Lecture

Day 3- Afternoon Session was conducted by Prof. Sandip Mali HOD, Civil Engineering, Pimpri Chinchwad College of Engineering, Pune on the study "Treatment and Disposal of Hazardous Waste". Sir has explained in detail about the various treatment methods for hazardous waste.



**Prof. Sandip Mali delivering Lecture** 

Day 4 – Morning Session was conducted by Dr. K. Nagamalleswara Rao, Associate Professor, Centre for Disaster Mitigation and Management, VIT- Vellore on the topics "Role of Artificial Intelligence and Machine Learning in reducing the environmental impacts by improving the performance of process industries." Dr. K. Nagamalleswara Rao explained the Role of Artificial Intelligence and Machine Learning in reducing the environmental pollution.



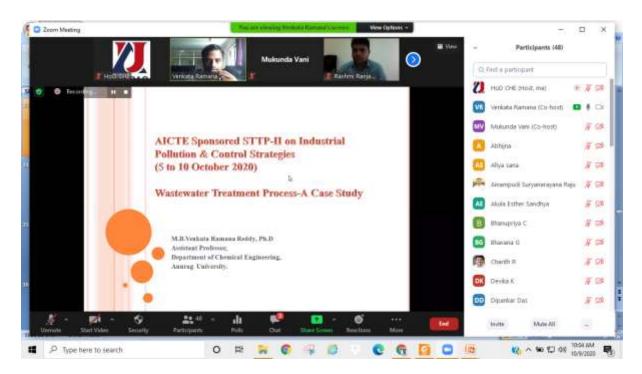
## Dr. K. Nagamalleswara Rao delivering Lecture

Day 4 – Afternoon Session was delivered by Dr. Sandeep P Shewale, Assistant professor, Chemical Engineering department, MIT, Pune on "Extraction of phenolic compound from natural resources". Dr. Sandeep P Shewale explained the extraction of phenolic compound.



Dr. Sandeep P Shewale delivering Lecture

Day 5 – Morning Session was conducted by Dr. T. Vijaya Kumar, Assistant professor, Chemical Engineering department, Anurag University, Hyderabad on the topic "Biomedical waste: categories, treatment and disposal" and Dr. M. B. Venkata Ramana Reddy, Assistant professor, Chemical Engineering department, Anurag University, Hyderabad on the topic "Wastewater treatment using case study".



Dr. M. B. Venkata Ramana Reddy delivering Lecture

Day 5- Afternoon Session was conducted by Dr. Hari Prasad Dasari, Associate professor, Department of chemical engineering, NIT-Suratkal on the topic "Materials Development in Fuel cells and DPF Technologies for reducing the carbon footprint. Sir has explained the various materials for Fuel cells and DPF.



Dr. Hari Prasad Dasari delivering Lecture

Day 6 – Morning Session was conducted by Dr. Narendar Nasani, Scientist, Center for Materials for Electronics Technology (C-MET), Pune on the topic "Environmental Impact of Hydrogen and Fuel Cell Technology for a sustainable energy future". Dr. Narendar Nasani sir discussed the importance of Hydrogen and Fuel Cell Technology in reducing pollution.



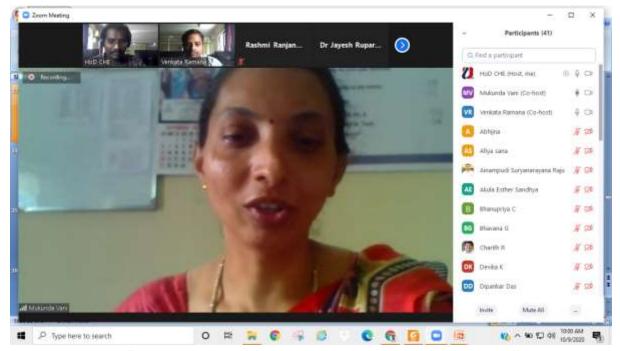
Dr. Narendar Nasani delivering lecture

Day 6 – Afternoon Session was conducted by Prof. Shirish H Sonawane, Head, Department of Chemical Engineering, NIT-Warangal on the topic "Process Intensification strategies in wastewater treatment for Chemical Industries". Prof. Shirish H Sonawane sir explained Intensification strategies in wastewater treatment for Chemical Industries.



#### **Prof. Shirish H Sonawane delivering Lecture**

The Valedictory for AICTE sponsored STTP-II was conducted on 10<sup>th</sup> October 2020 at 4:00 PM. Participants gave their feedback on one week STTP-II program followed by the Report on STTP-II by Dr.Mukunda Vani, Convener, STTP-II, Address by Prof. Shirish H Sonawane, Head, Department of Chemical Engineering, NIT-Warangal and Vote of Thanks for inaugural by Dr. M. B. Venkata Ramana Reddy, Assistant Professor, Department of chemical engineering, Anurag Group of Institutions. STTP-II ended with National Anthem by Vaishnavi Pammi, Final year Chemical Engineering student, Anurag Group of Institutions. The event was a grand success with 255 participants attending live in zoom.



Report on STTP-II delivered by Dr. M. Mukunda Vani, Convener, STTP-II

Everyday Lecture material was provided to participants through Whatsapp and Telegram and feedback on each lecture was also collected. Online exam was conducted on the last day of STTP-II on IP&CS and e-certificates were sent to all eligible participants as per AICTE norms.

#### **AICTE Sponsored Short Term Training Programme-III on**

"Industrial Pollution & Control Strategies"

23<sup>rd</sup> -28<sup>th</sup> November 2020

#### **REPORT**

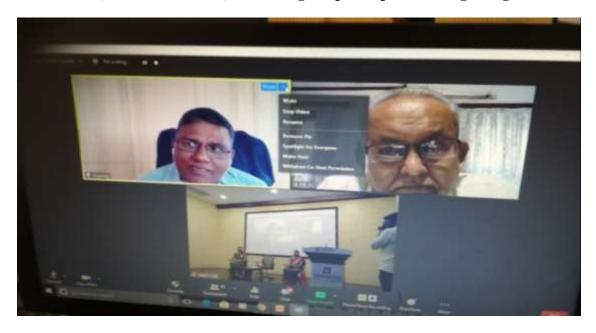
Department of Chemical Engineering, Anurag Group of Institutions organized AICTE sponsored one week Short Term Training Programme-III (STTP-III) on the topic "Industrial Pollution & Control Strategies" during 23<sup>rd</sup>-28<sup>th</sup> November 2020. In this STTP-III, 168 participants have

participated during this program. It was conducted on zoom meeting platform. Everyday 2 sessions were conducted – Morning and Afternoon from 10.00 am to 12.30 pm and 1.30 pm to 4.00 pm.

The program started with inauguration on 23<sup>rd</sup> November 2020 at 10:00 AM with welcome address by Dr. M. Mukunda Vani, Convener, STTP-III, HOD, Dept. of Chemical Engineering, Anurag Group of Institutions, Followed by address by Guest of Honour, Dinesh M Butala, Former Executive Director, Gujarat State Fertilizers Company Ltd, Address by Chief Guest Prof.S.Ramachandram, Vice-Chancellor, Anurag University. Vote of Thanks for Inaugural by N.Rama, Co-convener, STTP-III

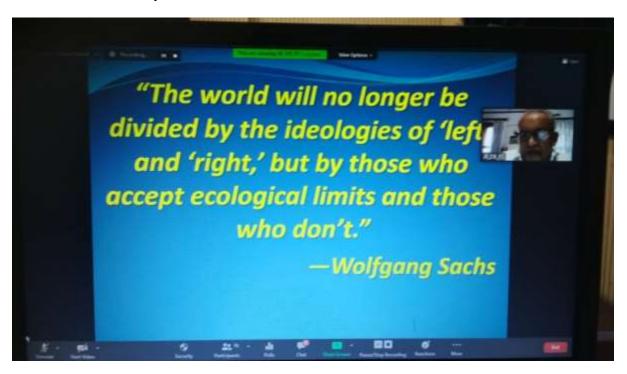


Dinesh M Butala, Guest of Honour, addressing the participants during inaugural session



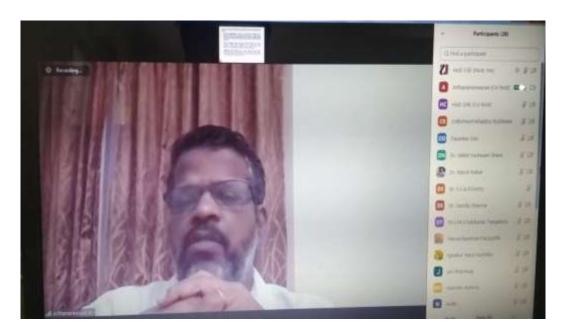
Prof.S.Ramachandram, Chief Guest, addressing participants during inaugural session

Day 1 – Morning Session was conducted by Dinesh M Butala, Former Executive Director, Gujarat State Fertilizers Company Ltd on the topic "Environmental Threats and Sustainability Challenges in Indian Chemical Industry sector". He clearly explained about the sustainability challenges in Indian Chemical Industry sector.



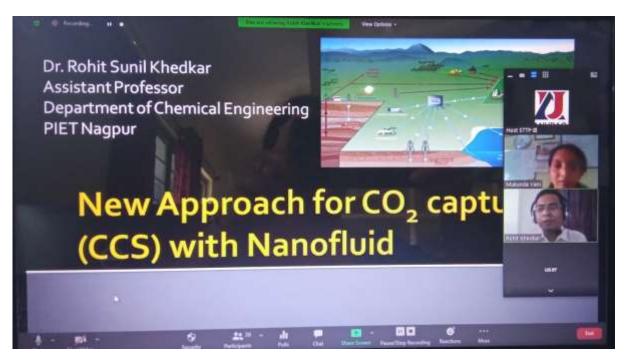
Lecture by Dinesh M Butala

Day 1- Afternoon Session was conducted by Prof. Arthanareeswaran, Associate Professor, Dept of Chemical Engineering, NIT Trichy on the topic "Membrane Technology in water pollution control:prospect and challenge". Prof. Arthanareeswaran sir enlightened the participants about the usage of membrane technology in water pollution control.



Prof. Arthanareeswaran delivering lecture

Day 2 – Morning Session was conducted by Dr.Rohit Sunil Khedkar Assistant Professor, PIET, Nagpur on the topic "New Approach for CO<sub>2</sub> capture with Nanofluid". Dr.Rohit sir focussed on various Nanofluids in capture of CO<sub>2</sub>.



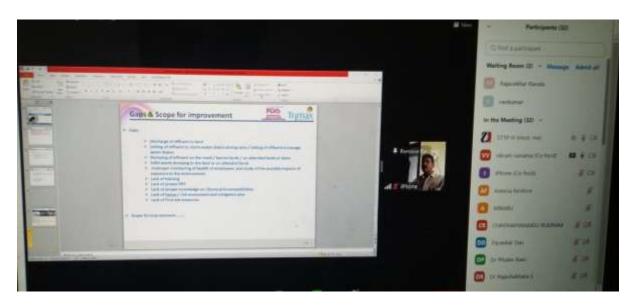
Dr.Rohit Sunil Khedkar delivering lecture

Day 2- Afternoon Session was conducted by Mr V. Kiran Kumar, Director & Head CIPET, Hyderabad on the topic "Plastic recycling and waste management". Mr V. Kiran Kumar explained about the different methods adopted in recycling of plastics and its impact on the environment.



Lecture delivered by Mr V. Kiran Kumar

Day 3 – Morning Session was conducted by Vikram Vanama, Director for Technical Operations, Business development Trimax BioSciences Pvt Ltd on the topic "EHS in pharmaceutical industry...current practices, short comings and scope for improvement" Vikram Vanama explained about the importance of Environment, Health and Safety aspects related to pharmaceutical industries.



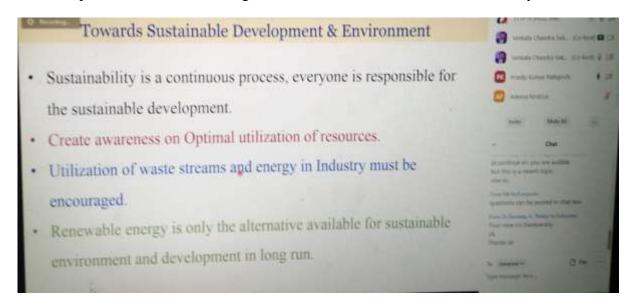
Vikram Vanama delivering Lecture

Day 3- Afternoon Session was continued by Dr. Venkata Chandra Sekhar Palla, Scientist, CSIR-IIP, Dehradun on the topic "Indian Centric Sustainable Environment and Development". Chandra Sekhar Palla sir has explained about sustainable development in India.



Dr. Venkata Chandra Sekhar Palla delivering Lecture

Day 4 – Morning Session was conducted by Mr.Sunil Kumar, Head, Technology Development Centre CSIR- NEERI, Nagpur on the topic "Waste Management Scenarios in India". Mr.Sunil Kumar explained how Waste Management Scenarios are followed in our country.



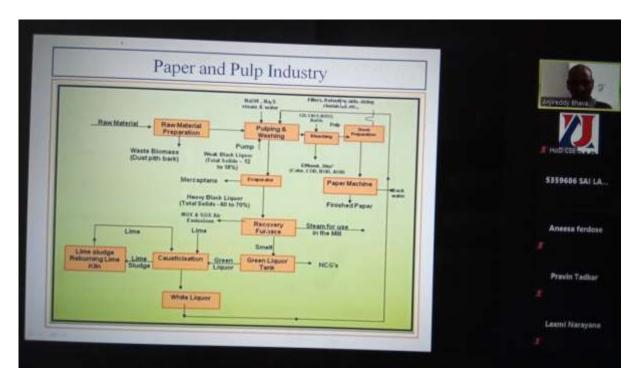
**Mr.Sunil Kumar delivering Lecture** 

Day 4 – Afternoon Session was conducted by Dr.Rohit Sunil Khedkar Assistant Professor PIET, Nagpur, MP on the topic "Role of Academician to identify causes, effects and give solution to Industrial Pollution." Dr. Rohit sir explained on academician role in combating Industrial Pollution.



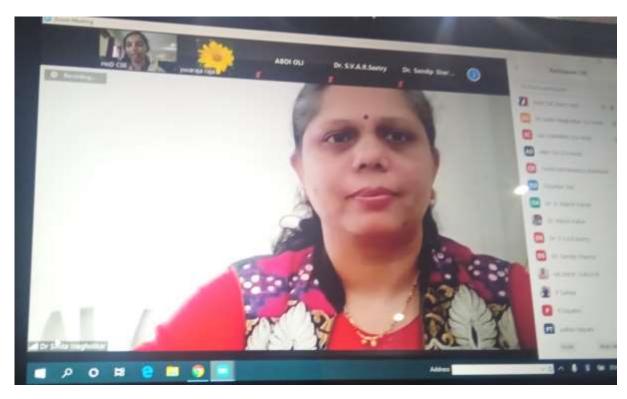
Dr.Rohit Sunil Khedkar delivering Lecture

Day 5 – Morning Session was conducted by Dr.Anjireddy Bhavanam, Assistant Professor Dept of Chemical Engineering, NIT, Jalandhar on the topic "Valorisation of paper and pulp industry waste in production of renewable fuels and chemicals" Dr. Anjireddy Bhavanam sir explained the pros and cons in production of renewable fuels from paper and pulp waste.



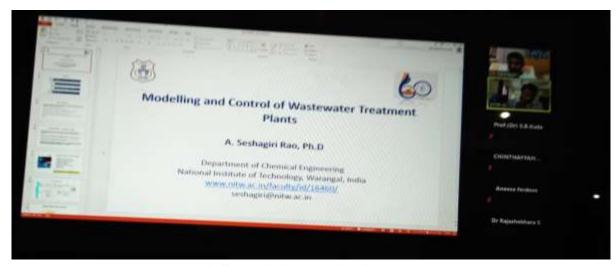
#### Dr.Anjireddy Bhavanam delivering Lecture

Day 5- Afternoon Session was conducted by Dr. Smita Wagholikar, Deputy Head, Quality Assurance Department, Symbiosis International University, Pune on the topic "An Overview on Methods of Treatment and control of water pollution". Smita Wagholikar madam has explained the treatment methods involved in control of water pollution.



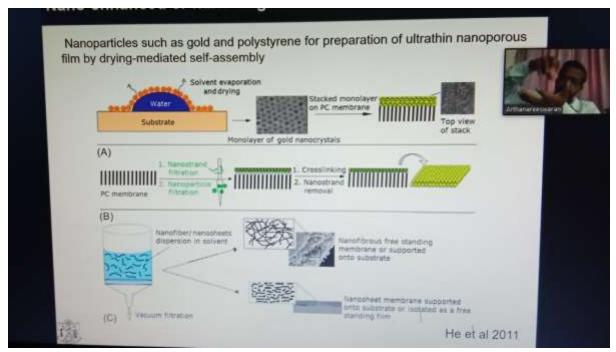
#### Dr. Smita Wagholikar delivering Lecture

Day 6 – Morning Session was conducted by Dr.A.Seshagiri Rao, Associate Professor, Dept of Chemical Engineering, NIT-Warangal on the topic "Modeling and control of wastewater treatment plant". Seshagiri Rao sir focussed on Modeling methods involved in control of wastewater treatment.



Dr.A.Seshagiri Rao delivering lecture

Day 6 – Afternoon Session was conducted by Prof. Arthanareeswaran, Associate Professor, Dept of Chemical Engineering, NIT Trichy on the topic "Nano structured membrane materials for removal of pollutants from air and gas". Prof. Arthanareeswaran sir explained about usage of nano structured materials for removing pollutants from air and gas.



Prof. Arthanareeswaran delivering Lecture

The Valedictory for AICTE sponsored STTP-III was conducted on 28<sup>th</sup> November 2020 at 3:30 PM. Participants gave their feedback on one week STTP-III program followed by the Report on STTP-III by Dr.Mukunda Vani, Convener, STTP-III, Address by Chief Guest Prof. Syeda Sameen Fatima, Registrar, Anurag University and vote of thanks by Dr. M. B. Venkata Ramana Reddy, Co-Convener, STTP-III. STTP-III ended with National Anthem by Vaishnavi Pammi, Final year Chemical Engineering student, Anurag Group of Institutions. The event was a grand success with 150 participants attending live in zoom.



Report on STTP-III delivered by Dr. M. Mukunda Vani, Convener, STTP-III

Everyday Lecture material was provided to participants through Whatsapp and Telegram and feedback on each lecture was also collected. Online exam was conducted on the last day of STTP-III on IP&CS and e-certificates were sent to all eligible participants as per AICTE norms.

#### 6. Impromptu Speech Contest (Online)



Impromptu speech contest was conducted on 18<sup>th</sup> August 2020 where 81 students from various colleges participated in the contest and 10 students were selected for the next round Student Panel Discussion on the next day. On 19<sup>th</sup> August 2020,

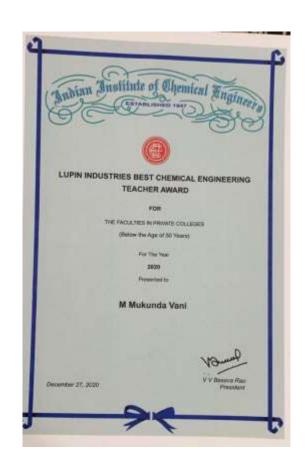
Dr. Sanjay Bhardwaj gave a guest lecture on Safety Management which was followed by Student Panel Discussion on the topic "Safety and Hazard Management in view of current Scenarios in Chemical Industries". The event was successfully conducted under the guidance of Head of Department Dr. Mukunda Vani and Mr. Purushotham Theegala

## **Student Panel Discussion(Online)**

# **List of Participants**

S.No	NAME OF THE PARTICIPANT	NAME OF THE COLLEGE	Year
1	Pothala Pallavi	Chaitanya Bharathi institute of Technology	Chemical Engineering
2	Md Abul Ahsaan	Anurag University	Chemical Engineering
3	Nikhil Komalla	University College of Technology (A), Osmania University	Chemical Engineering
4	Teerdhankara Satya Avinash Raja	R.V.R & J.C College of Engineering	Chemical Engineering
5	K. V. L. S. Chandana	RGUKT-Nuzvid	Chemical Engineering
6	Shikhara Reddy	Anurag University	Chemical Engineering
7	Sireesha	RGUKT-Nuzvid	Chemical Engineering
8	Adity Dwivedi	Anurag University	Chemical Engineering
9	Vaishnavi G	Anil Neerukonda Institute of Technology and Sciences	Chemical Engineering
10	Sparsh Patel	The Maharaja Sayajirao University, Baroda	Chemical Engineering

7. Dr. M. Mukunda Vani has been awarded with Lupin Industries "Best Chemical Engineering Teacher Award" by Indian Institute of Chemical Engineers at CHEMCON 2020 During 27<sup>th</sup> - 29<sup>th</sup> December 2020



## **8. Online Internships**

### IV B.TECH I SEM 2020-21 Final Year Mini Projects (2020-21) (Online Mode from IIChE)

S No.	Hall ticket Number	Name	Subject
1	17H61A0801	Abdul Hadi	Petrochemical Engineering
2	17H61A0802	Anvesh	Process safety management
3	17H61A0803	Sai Charan	Process safety management
4	17H61A0804	Sumanth	Process safety management
5	17H61A0805	Vinod Naik	Process safety management
6	17H61A0806	Ansari Mohammad Iqbal	Zero discharge liquid management
7	17H61A0807	Jagadeesh	Zero discharge liquid management

8	17H61A0808	Caroline Wesley	Chemical process technology
9	17H61A0809	Rahul	Biochemical process
10	17H61A0810	Ganesh	Biochemical process
11	17H61A0811	Varsha Gampa	Chemical process technology
12	17H61A0812	Gayathri	Zero discharge liquid management
13	17H61A0813	Sankeerthana	Petrochemical Engineering
14	17H61A0814	Jai Kishan Chandarana	Chemical process technology
15	17H61A0815	Harshith Reddy	Biochemical process
16	17H61A0816	Preethi	Petroleum refinery Engineering
17	17H61A0817	Shiva	Petroleum refinery Engineering
18	17H61A0818	Prasad	Process safety management
19	17H61A0819	K.L.N Avadhani	Process safety management
20	17H61A0820	Bhuvana Chandra Naidu	Biochemical process
21	17H61A0821	K. Omkar Reddy	Zero discharge liquid management
22	17H61A0826	M.Harilal	Petrochemical Engineering
23	17H61A0827	Abul Ahsaan	Process safety management
24	17H61A0828	Omer	Zero discharge liquid management
25	17H61A0829	P.V.N Manoj	Process safety management
26	17H61A0830	P.Nikhila	Process safety management
27	17H61A0831	Sai Kaushik	6 sigma
28	17H61A0832	Pooja Purohit	Chemical process technology
29	17H61A0833	RVS Charan Reddy	Process safety management
30	17H61A0834	Rithvik Bhargav	Biochemical process
31	17H61A0835	Sushmitha	Petroleum refinery Engineering

32	17H61A0836	Gouse	Zero discharge liquid management
33	17H61A0837	Vamshi Krishna	Process safety management
34	17H61A0838	Amrutha Varshini	Chemical process technology
35	17H61A0839	Syed Rashid Iqbal	Chemical process technology
36	17H61A0840	T. Vaishnavi	Biochemical process
37	17H61A0842	Rakesh	Biochemical process
38	17H61A0843	Vaishnavi Pammi	Biochemical process
39	17H61A0844	Yasser Mirza Baig	Chemical process technology
40	18H68A0801	Sarita	Chemical process technology
41	14H61A0823	E. Sashi Preetham	Zero discharge liquid management

## 9. NPTEL Certifications (Faculty)

S. No	Name of the faculty	Course Name	Score	Duration
1	Dr.M.Mukunda Vani	Unit Operations of Particulate Matter	85% (Elite, Silver)	Sept-Oct 2020
2	Sk.Shaheda	Chemical Process Intensification	82% (Elite, Silver)	Sept-Oct 2020
3	M.B.Venkata Ramana Reddy	Chemical Process Safety	73% (Elite)	Sept-Dec 2020
4	P.L.V.N.Sai Chandra	Technologies for Clean and Renewable Energy Production	68% (Elite)	Sept-Nov 2020

# **Student Achievements 2020-21 Prize Winners/Certificate of Appreciation**

S.No	Name of the student	Name of the Event	Organized by	Dates	Achievement
1	Jai kishan Chandarana (IV B.Tech)	Padmasri B V Raju Best Merit Student award	IIChE-HRC for Chemical Engineering students of its affiliated IIChE Student Chapters.	5 <sup>th</sup> June 2021	Best Merit Student award
2	Abhiram (III B.Tech)	Elocution competition in the Annual Awards Event 2020 – 2021	IIChE-HRC for Chemical Engineering students of its affiliated IIChE Student Chapters.	5 <sup>th</sup> June 2021	First prize
3	P.Shirisha (IV B.Tech)	Ambuja's Best Home paper or Design project report awards	IIChE-HRC for Chemical Engineering students of its affiliated IIChE Student Chapters.	25 <sup>th</sup> Februa ry 2020	Third prize
4	Abhiram (III B.Tech)	Speech contest	Toastmasters club, AGI	17 <sup>th</sup> March 2021	Second prize
5	Abhiram (III B.Tech)	Orafest, 2021	Orafest Club	11 April 2021	Golden feather award
6	Srivalli (II B.Tech)	Essay writing competition in the Annual Awards Event 2020 – 2021	IIChE-HRC for Chemical Engineering students of its affiliated IIChE Student Chapters.	5 <sup>th</sup> June 2021	second
7	Jai kishan Chandarana (IV B.Tech)	INQUIZITIVE (All India Level Chemical	Department of Chemical Engineering, BVRIT	8 <sup>th</sup> -9 <sup>th</sup> July 2020	Certificate of Appreciation

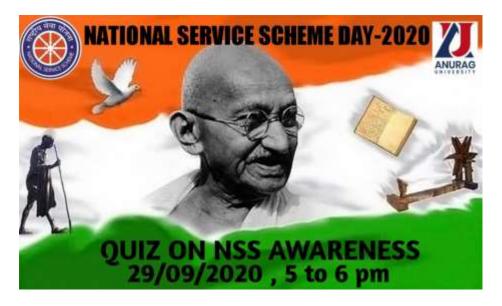
		Engineering Quiz Competition)			
8	Varsha Gampa (IV B.Tech)	INQUIZITIVE (All India Level Chemical Engineering Quiz Competition)	Department of Chemical Engineering, BVRIT	8 <sup>th</sup> -9 <sup>th</sup> July 2020	Certificate of Appreciation
9	Ghanshyam (III B.Tech)	Online quiz on "Check your Competence"- A language Profiency Test for Employability	Department of English, Anurag University	30 <sup>th</sup> July 2020	Certificate of Appreciation (B+ Grade)
10	C.Sarita (IV B.Tech)	Online quiz on "Check your Competence"- A language Profiency Test for Employability	Department of English, Anurag University	30 <sup>th</sup> July 2020	Certificate of Appreciation( B+ Grade)
11	P.L.C. Sai Kiran (III B.Tech)	INQUIZITIVE (All India Level Chemical Engineering Quiz Competition)	Department of Chemical Engineering, BVRIT	8 <sup>th</sup> -9 <sup>th</sup> July 2020	Certificate of Appreciation
12	K. Chandrika (III B.Tech)	Online quiz on "Prepositions and Articles"	Department of English & JKC, Govt. Degree College, S.Kota, Vizianagaram	14 <sup>th</sup> Septem ber 2020	Certificate of Appreciation
13	D Naresh Kumar (III B.Tech)	Online quiz on "General Chemistry"	Department of Chemistry, Chaitanya (Deemed to be University)	11 <sup>th</sup> & 12 <sup>th</sup> August 2020	Certificate of Appreciation
14	K. Chandrika (III B.Tech)	Webinar on "Liquid sorption, Air conditioning	Department of Chemical	1 <sup>st</sup> July 2020	Certificate of Appreciation

		and Desalination systems; Thermal Modeling and experimental aspects"	Engineering, BVRIT		
15	Bellakonda Jagadeesh (IV B.Tech)	Online e-quiz on "Basics in Finite Element Methods"	Department of Mechanical Engineering, AGI,Hyd.	18 <sup>th</sup> August 2020	Certificate of Appreciation
16	Bellakonda Jagadeesh (IV B.Tech)	Online e-quiz on "Fundamentals of Mechanical Engineering"	Department of Mechanical Engineering, Sri Vasavi Institute of Engineering and Technology, Krishna Dist,Hyd	30 <sup>th</sup> May 2020 to 4 <sup>th</sup> June 2020	Certificate of Appreciation

# 10. 03 programs are conducted under NSS

S. No	Event date	Event name	<b>Participants</b>
1	29-09-2020	Quiz on NSS Awareness (online quiz)	210
2	17-02-2021	Haritha Haram, Plant-saplings program	30
3	24-07-2021	Haritha Haram, Plant-saplings program	25

# 1) Quiz on NSS Awareness



2) Haritha Haram, Plant-saplings programme



3) Haritha Haram, Plant-saplings program



# 11. Placements - Total No. of students: 41

# **Total No. of offers: 30**

S. No	Roll Number	Name of the Student	Name Of The Company	Salar y (In Lacs	Total Number of Offers
1	17H61A0801	Abdul Hadi Ali Khan	Vasant Chemical Pvt Ltd, Hyderabad	2.0	1
2	17H61A0802	Algola Anvesh	Honour Lab Limited, Hyderabad	2.0	1
3	17H61A0807	B Jagadeesh	Honour Lab Limited, Hyderabad	2.0	1
4	17H61A0809	Chippa Rahul	Honour Lab Limited, Hyderabad	2.0	1
5	17H61A0811	Gampa Varsha	Just Dial Ltd, Accenture, Avra laboratories Pvt Ltd, Whitehat Education Techology Pvt Ltd	4.5	4
6	17H61A0812	S.Gayathri	Avra Laboratories Pvt Ltd, Hyderabad	2.0	1
7	17H61A0813	J.Sankeerthana	Green Novel life sciences Pvt Ltd, Hyderabad	2.0	1

8	17H61A0816	K Preethi	Avra Laboratories Pvt Ltd, Hyderabad	2.0	1
9	17H61A0817	K. Shiva Kumar	Honour Lab Limited, Hyderabad	2.0	1
10	17H61A0818	K.Prasad Reddy	BYJU'S, Vasant Chemical Pvt Ltd	2.0	2
11	17H61A0819	Kompella Lakshmi Narayana Avadhani	Vasant Chemical Pvt Ltd	2.0	1
12	17H61A0821	K Omkar Reddy	Sutherland Global Services	2.8	1
13	17H61A0826	M.Harilal	Revin labs Pvt Ltd. Hyderabad	2.0	1
14	17H61A0831	P. Sai kaushik	Honour Lab Limited, Hyderabad	2.0	1
15	17H61A0832	Pooja Purohit	STRIDEINCORPORATION (SGC), Avra laboratories Pvt Ltd., Whitehat Education Techology Pvt Ltd	2.4	3
16	17H61A0833	Regalla Venkata Siva Charan Reddy	Vasant Chemical Pvt Ltd	2.0	1
17	17H61A0834	Rithvik Bharghav M	Aurobindo Pharma Ltd(GET), TCS Ninja, Accenture	4.5	3
18	17H61A0837	Soma Vamshi Krishna	Aurobindo Pharma Ltd, Vasant Chemical Pvt Ltd, Hyderabad	2.2	2
19	17H61A0840	T.Sri Vaishnavi	Whitehat Education Techology Pvt Ltd, Hyderabad	1.4	1
20	17H61A0842	Tota Rakesh	Honour Lab Limited, Hyderabad	2.0	1
21	18H68A0801	C.Saritha	Sutherland Global Services, Hyderabad	2.8	1

12.

JOURNAL PUBLICATIONS 2020-21

S.NO	AUTHORS	TITLE OF THE PAPER	NAME OF THE JOURNAL	VOLUME, ISSUE, PAGE NO, ISSN NO.	PAGE NO.
1	M.B.Venkata Ramana Reddy, M.Mukunda Vani	Study of flow patterns of Anabaena ambigua culture in an external loop airlift photobioreactor with cross-shaped sparger using Computational Fluid Dynamics analysis	Journal of Biochemical Technology	Vol-11, Issue-3, Page: 1-7, ISSN: 0974- 2328	1-7
2	M.Mukunda Vani, R.Satish Babu, M.B.Venkata Ramana Reddy	Process Variable Optimization for the Liquefaction of Guava Fruit Pulp using Soluble Enzyme by Response Surface Methodology	Journal of Biochemical Technology	Vol-11, Issue-3, Page: 68-76. ISSN: 0974- 2328	8-16
3	M. Shireesha, Yaseer Mirza Baig, C. Sarita, Syed Rashid Iqbal, Caroline Wesley, N.Vaishnavi	Bio-Oil Extraction from the Shells of Cocos Nucifera – A Source of Generating Renewable Energy and Its Analysis	International Journal of Innovative Technology and Exploring Engineering (IJITEE),	Vol-10 Issue-7, Page: 1-10. ISSN: 2278- 3075	9-26
4	T.Vijaya Kumar, Purushotham Theegala, M.Mukunda Vani	Experimental investigation of temperature dependent dynamic viscosity of SiO <sub>2</sub> -water nanofluid at	International journal of advanced research in engineering and	Vol- 11, Issue- 12, Page: 2599- 2608 ISSN: 0976- 6480	27-36

5	M. Mukunda Vani , Yasser Mirza Baig , Caroline Wesley and Syed Rashid Iqbal	various concentrations  Sustainable Project-Based Learning: A More Practical Approach	technology (IJARET),.  Journal of Engineering Education Transformatio ns,	Vol- 34 (2021): Page: 718-724. ISSN: 2394- 1707	37-43
6	D. Pratibha, P Anurag, C Nagamani, D Shruthi Keerthi	Impact of Industry collaboration in developing core engineering departments	Journal of Engineering Education Transformatio ns,	Vol -34 (2021): Page: 468-476, ISSN: 2394- 1707	44-52
7	Jaikishan Chandrana, P.L.V.N. Saichandra	Production of Bioplastics from Banana Peels	International Journal of Scientific Research and Engineering Trends (IJSRET), Vol. 7, Issue 1, Page: 131-133.	Vol. 7, Issue 1, Page: 131-133 ISSN (Online): 2395-566X.	53-55
8	N.Vaishnavi, M.Shireesha,V. Sesha Sai Kumar N.Rama	Equation Of State Models to Study Compression Behavior Under Pressure: Zno Nanoparticles As An Example	Solid state Technology.	Vol -63, Issue- 5, Page: 368- 370	56-58

## NATIONAL / INTERNATIONAL CONFERENCE PUBLICATIONS 2020-2021

S.NO.	AUTHORS	TITLE OF THE PAPER	NAME OF THE CONFERENCE	YEAR
1	D. Pratibha, P Anurag, C Nagamani, D Shruthi Keerthi	Impact of Industry collaboration in developing core engineering departments	Eighth International conference on Transformation in engineering education.	January 2021
2	P. L. V. N. Saichandra	Significance of chemical sciences in prevention of COVID-19 pandemic	SCSPCP-2020, Anjangaon Surji, Maharashtra.	June 2020
3	P. L. V. N. Saichandra, G. B. Radhika, Satyanarayana	Studies on removal of copper using graphene from wastewater	ICRTSH-2020	September 2020
4	M. Mukunda Vani , Yasser Mirza Baig , Caroline Wesley and Syed Rashid Iqbal	Sustainable Project-Based Learning: A More Practical Approach	Eighth International conference on Transformation in engineering education.	January 2021

## **BOOK CHAPTER PUBLICATIONS 2020-21**

S.NO.	AUTHORS	TITLE OF THE PAPER	NAME OF THE BOOK	YEAR
1	Rahul Kumar, Uttam Kumar Neerudu, Ragini Gothalwal, Swati Mohapatra, Pallav Kauhsik Deshpande, M. Mukunda Vani, Ramchander Merugu	Bioprocess Parameters for Thermophilic and Mesophilic Biogas Production: Recent Trends and Challenges	Published in: Bioenergy Research: Basic and advanced concepts.  DOI: 10.1007/978- 981-33-4611-6_8. Publisher: Springer Singapore	March 2021
2	V. Sesha sai kumar, M. Shireesha, N. Rama, Yaseer Mirza Baig, C.Sarita, Syed Rashid Iqbal, R. S. Amrutha Varshini, Caroline wesely	Transformation of diary production in India: A simplified review.	Published in: Agriculture and Food. ESN publications. ISBN: 978-93- 90781-05-8	2021

# PATENT PUBLICATIONS 2020-2021

S. No	Year of Application	Patent Application	Inventor (Name1, Name2,)	Status (Filed / Published /	Patent Title
		No.		FER /	
				Granted)	
1.	2021	2021101099	Ramesh Chandra	Published	A Novel Indigenous
			Panda, Pranati Rakshit,		Sustainable Vaccine
			Tanya Garg, Lakshmi		Carrier for
			D, M. Mukunda Vani,		Maintenance of Cold
			R. Venkat Reddy, Jyoti		Chain
			Snehi, Ram Krishn		
			Mishra, Sumanta		

			Bhattacharya, Sonali Bhattacharyya, Lokanatha Dhall Samanta, Ravinder Goyal, Anupam Garg.		
2.	2021	2021101539	Manimaran A, Avinash lakshmikanthan, Neeraja B, Tasneem Bano Rehman, Roohi Ansari, Shiv Pratap Singh Yadav , Vijendra Babu D, Narayanaswamy C, Saichandra P L V N, Parasuraman S, Veeramalai G, Jenopaul P.	Published	System and method for indoor clothes dryer using direct transportation of solar Light
3.	2020	20204104919 6A	Nagaram Mahender, Dr N Nanda Kumar, Dr. M. Mukunda Vani, Dr. SSSR Sarathbabu Duvvuri, Archana Rao P, SK. Shaheda	Published	Fluid agitation reactor with modified inclined baffles

S No.	NAME OF THE	WORKSHOP/ FDP/	DATE, INSTITUTE,
	FACULTY	SEMINAR	PLACE
1	Dr.M.B.Venkata Ramana Reddy, All Faculty	Attended AICTE sponsored Short Term Training Programme- I on "Industrial Pollution and Control Strategies"	24th to 29th August 2020, Anurag University
2	Dr.M.B.Venkata Ramana Reddy, All Faculty	Attended AICTE sponsored Short Term Training Programme- II on "Industrial Pollution and Control Strategies"	5th to 10th October 2020, Anurag University
3	Dr.M.B.Venkata Ramana Reddy, All Faculty	Attended AICTE sponsored Short Term Training Programme- III on "Industrial Pollution and Control Strategies"	23rd to 28th November 2020, Anurag University
4	Dr.M.B.Venkata Ramana Reddy	Technical Committee Member, CHEMCON 2020	Organized by IIChE during 27th to 29th December 2020
5	Dr. M Mukunda Vani	Organizing Committee member, Convener, Technical paper presentations, Chemcon 2020	Organized by IIChE during 27th to 29th December 2020
6	Sk.Shaheda	AICTE Sponsored Online Six Day Short Term Training Program-III on "Sustainable Design of Chemical Process Plants by Using ASPEN PLUS and ASPEN HYSYS Simulating Tools"	Vellore Institute of Technology (VIT), Vellore, Tamil Nadu, India during 21-09-2020 to 26-09-2020
7	Sk.Shaheda	WEBINAR on Innovations in chemical engineering to combat Covid-19	IIT Hyderabad on 23rd July 2020
8	Sk.Shaheda	One Day International Webinar on Sustainable Development: Past, Present and Future	25th August 2020, Chintamani College of Arts and Science Gondpipri Dist. Chandrapur (MS) India
9	Sk.Shaheda	"Selection of Dryers in Process Industries and Troubleshooting"	23rd August 2020,B V RAJU INSTITUTE OF

			TECHNOLOGY, Vishnupur, Narsapur, Medak -502313
10	Sk.Shaheda	Attended AICTE sponsored Short Term Training Programme- III on "Industrial Pollution and Control Strategies"	23rd to 28th November 2020, Anurag University
11	Sk.Shaheda	Attended AICTE sponsored Short Term Training Programme- I on "Industrial Pollution and Control Strategies"	24th to 29th August 2020, Anurag University
12	Sk.Shaheda	International Workshop on Accelerate Research	online during 22 nd 26 th, September 2020, Anurag University
13	Sk.Shaheda	Faculty Development on Python	2020-09-14 to 2020-09- 19,Spoken Tutorial Project, IIT Bombay, funded by the National Mission on Education through ICT, MHRD, Govt. of India.
14	Sk.Shaheda	AICTE Sponsored Short Term Training Programme on Fostering an Effective Research Environment and Industrial Collaborations in Engineering Education Phase-II	24th to 29 th August 2020,Department of Chemical Engineering,St. JOSEPH'S COLLEGE OF ENGINEERING,Chennai - 600119
15	Sk.Shaheda	Attended AICTE sponsored Short Term Training Programme- II on "Industrial Pollution and Control Strategies"	5th to 10th October 2020, Anurag University
16	Sk.Shaheda	A National Level Online Technical Workshop for Engineering Students on ASPEN	09-06-2021,B V RAJU INSTITUTE OF TECHNOLOGY,Vishnupur, Narsapur, Medak -502313

17	Sk.Shaheda	Oracle Academy Virtual Girls in ICT Day 2021, Japan & Asia Pacific	22-04-2021,Oracle Academy
18	D. Shruthi Keerthi	Attended AICTE sponsored Short Term Training Programme- I on "Industrial Pollution and Control Strategies"	24th to 29th August 2020, Anurag University
19	D. Shruthi Keerthi	Attended AICTE sponsored Short Term Training Programme- II on "Industrial Pollution and Control Strategies"	5th to 10th October 2020, Anurag University
20	D. Shruthi Keerthi	Attended AICTE sponsored Short Term Training Programme- III on "Industrial Pollution and Control Strategies"	23rd to 28th November 2020, Anurag University
21	D. Shruthi Keerthi	Pannel discussion, publicity and media committee member, Chemcon 2020	Organized by IIChE during 27th to 29th December 2020
22	D. Shruthi Keerthi	organiser, Elocution competitions, IIChE intercollege competitions	Organized by IIChE during 5th June 2021
23	P.L.V.N. Saichandra	Attended AICTE sponsored Short Term Training Programme- I on "Industrial Pollution and Control Strategies"	24th to 29th August 2020, Anurag University
24	P.L.V.N. Saichandra	Attended AICTE sponsored Short Term Training Programme- II on "Industrial Pollution and Control Strategies"	5th to 10th October 2020, Anurag University
25	P.L.V.N. Saichandra	Attended AICTE sponsored Short Term Training Programme- III on "Industrial Pollution and Control Strategies"	23rd to 28th November 2020, Anurag University

26	P.L.V.N. Saichandra	Technical Committee Member, CHEMCON 2020	Organized by IIChE during 27th to 29th December 2020
27	P.L.V.N. Saichandra	Certificate Committee Member, CHEMCON 2020	Organized by IIChE during 5th June 2021
28	P.L.V.N. Saichandra	Attended One week National level Faculty development program on Cyber Security	7th to 12th July 2020, organized by CBIT and MGIT, Hyderabad
29	P.L.V.N. Saichandra	Attended online FDP on "Recent Innovations in Chemical Engineering (RICE)"	29th June to 3rd July 2020, organized by Dept. of Chemical Engg., BKIT, Bhalki
30	P.L.V.N. Saichandra	Attended Webinar on Simulation Driver Design	9th July 2020, organized by Altair Engineering
31	P.L.V.N. Saichandra	Participated in National Level Webinar on "Aircraft Loads"	03rd October 2020, organized by Department of Mechanical Engineering of SMSMP Institute of Technology & Research, Akluj
32	P.L.V.N. Saichandra	Successfully completed "A National Level e-Quiz on "INDUSTRIAL RELATIONS – PRACTICE AND PERSPECTIVE"	8th July 2020, Organized by Department of MBA, RISE Krishna Sai Prakasam Group of Institutions
33	P.L.V.N. Saichandra	Participated in a National Level online quiz for "HUMAN RESOURCE MANAGEMENT"	8th July 2020, organised by Department of MBA, Rise Krishna Sai Prakasam Group of Institutions, Ongole
34	P.L.V.N. Saichandra	Successfully completed "A National Level e-Quiz on "Managerial Economics and Financial Analysis"	24th July 2020, Organized by Department of MBA, Rise Krishna Sai Gandhi Group of Institutions

35	P.L.V.N. Saichandra	Successfully completed the national level quiz on "3D Printing" organized by department of Mechanical Engineering conducted	15th July 2020, organized by Vishnu Institute of Technology, Bhimavaram
36	P.L.V.N. Saichandra	Participated in a National Level online quiz for "HUMAN RESOURCE MANAGEMENT"	14th July 2020, organised by Department of MBA, Rise Krishna Sai Prakasam Group of Institutions, Ongole
37	P.L.V.N. Saichandra	Participated in the 5-day online FDP on "Recent Advances in Chemical Engineering"	During 07th – 11th July, 2020, organized by Department of Chemical Engineering of GMR Institute of Technology, Rajam
38	P.L.V.N. Saichandra	Successfully completed "Commerce & Management studies quiz"	3rd July 2020, conducted by Vizianagaram district commerce lecturers welfare association
39	P.L.V.N. Saichandra	Successfully attended National Webinar on "Effective and efficient writing of research papers for web of science, Scopus indexed journal and Conference papers using Typeset Research Studio"	1st July 2020, Organized by Department of Electronics & Telecommunication & Central Library, AISSMS COE, Pune
40	P.L.V.N. Saichandra	Attended An International webinar on "Green Fuels: Novel Catalytic Synthesis"	18th July 2020, organized by Dept. of chemical Engg., Raja Balwant Singh Engg. technical campus, Lucknow
41	P.L.V.N. Saichandra	Participated in a National Level online quiz for "RESEARCH MECHANICS ON SAMPLE STATISTIC(S)"	1st July 2020, organised by Department of MBA, Rise Krishna Sai

			Prakasam Group of Institutions, Ongole
42	P.L.V.N. Saichandra	Participated in National level "Online quiz on National Flag" organized by NSS Unit and Dept. of Botany, SCNR Govt. degree college, Andhra Pradesh	10th August 2020
43	P.L.V.N. Saichandra	Successfully completed "A National level E-quiz on Data Science"	6th July 2020, organized by Dept. of computer science & Engg., Rise Krishna Sai Prakasam Group of Institutions, Ongole
44	P.L.V.N. Saichandra	Attended a Webinar on "IOT on Automotive"	29th July 2020, Organized by the Department of Electronics and Communication Engineering of Rathinam Technical Campus, Coimbatore
45	P.L.V.N. Saichandra	Participated in in Online Quiz Competition on "Schemes & Initiatives by PM Narendra Modi" organised by National Service Scheme (Units I &II) as a part of 74th Independence Day celebrations	16th August 2020, RBVRR Womens college, Hyderabad
46	P.L.V.N. Saichandra	Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Alternate Fuels"	From 7th September to 11th September 2020, Shaheed Bhagat Singh State Technical Campus, New Delhi
47	P.L.V.N. Saichandra	Attended the International Workshop on Accelerate Research, conducted online	During 22nd to 26th September 2020, Anurag University, Hyderabad

48	P.L.V.N. Saichandra	Participated in the Online AICTE	From 21st September 2020
		Recognized Faculty	to 25th September 2020
		Development Programme	(one Week)
		on "Research Pedagogy and	Conducted by Computer
		Technical Writing "	Science and Engineering
			NITTTR, Chandigarh
49	P.L.V.N. Saichandra	Participated in the National Webinar	28th August 2020, Jointly
		on "Catalysis and its applications in	organized by Catalysis society
		Pollution Abatement- Smart	of India, Chandigrah and
		solutions"	TEQIP-III, Dr. S.S. Bhatnagar
			UICET, Punjab University