

Engage and give moral support to the children at SPOORTHI orphanage on 05th December, 2021

The Department of Chemical Engineering, ANITS, Visakhapatnam, in association with RACE Students chapter organized an event to engage and give moral support to the children at SPOORTHI orphanage on 05-12-2021. Prof. T.V. Hanumantha Rao, Principal, ANITS acknowledged the students for providing a helping hand to children in orphanages who were badly affected by COVID-19 pandemic. Students visited the orphanage and engaged the students in some recreational activities such that students will be relieved from the stress due to COVID-19. After these activities, food is distributed to the children and eaten with the children to motivate them that they are not alone. At the end of the day, students distributed stationary items and mats to the children. The orphanage coordinator informed that this activity encouraged and motivated the orphanage children who are depressed by COVID-19. A total of 82 students participated in the event and made it a meaningful event for the children.

Figure 1: Students and children at SPOORTHI orphanage Figure



2: Students distributing stationary and mats

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Department of Chemical Engineering  
News Letter (AY2021-2022)

Value Added Courses

Two week value added course on "SCILAB - an open source tool (A practical approach)" during 16-08-2022 to 29-08-2022

Title: SCILAB - an open source tool (A practical approach)

The Department of Chemical Engineering, ANITS, Visakhapatnam, in association with ANITS IICHe Students chapter under Waltair Regional Centre organized two week value-added course on, "SCILAB - an open source tool (A practical approach)", during 16-08-2022 to 29-08-2022. The basics of SCILAB functions, plotting, using scripts and functions, methods to solve linear and nonlinear equations, regression analysis, interpolation techniques and methods to solve ODEs, PDEs and optimization techniques were covered during the course. A total of 48 students attended the course, developed programming and problem solving skills.



Figure 1: Session on introduction to SCILAB



Figure 1: Session on introduction to SCILAB Figure 2: Session on Vectors and matrices

**Two week value added course on “Identification and understanding of potential hazards in Chemical industries” during 17-08-2022 to 30-08-2022**

**Title: Identification and understanding of potential hazards in Chemical industries**

The Department of Chemical Engineering, ANITS, Visakhapatnam, in association with ANITS IICHe Students chapter under Waltair Regional Centre organized two week value-added course on, “Identification and understanding of potential hazards in Chemical industries”, during 17-08-2022 to 30-08-2022. The methods to identify hazards, industrial hygiene, fires and explosions, flammable materials handling, personal protection equipment and disaster management along with case studies were covered during the course. A total of 35 students attended the course and benefited from the course.



**Figure 1:** Lecture session on personal protective equipment



**Figure 2:** Lecture session on hazard identification methods

**The Memorandum of Understanding (MOU) Report on the activity conducted as a part of MoU with M/s Aaharya Technologies, Eluru**

Sri Thota Sivaji, Founder and CEO, Aaharya Technologies, Eluru supported by providing permission to analyse the iron oxide nanoparticles from their laboratories. The analysis report confirmed that the iron nanoparticles are produced and left a positive impact on the students to continue their study furthermore. On behalf of the Department of Chemical Engineering, ANITS, Prof. S. Subba Rao, Professor, Mr. B. Pradeep Santosh Kumar, Asst. Prof., Mr. BVNSG Sudarshan and Mr. IVRNKS Aniketh, students of Department of Chemical Engineering expressed their gratitude and support during the analysis at Aaharya Technologies. Dr. Ch. Anil, HoD, Chemical Engineering thanked Sri Thota Sivaji for supporting the department as a part of industry institute interaction and Memorandum of Understanding.

**RACE Body Events**

**Prevention of spreading mosquito diseases (malaria and dengue)  
On 29th August, 2022**

The Department of Chemical Engineering, ANITS, Visakhapatnam, in association with RACE Students chapter organized an awareness camp on prevention of spreading mosquito diseases in the nearby villages of Tagarapuvalasa.

The program is flag shipped by Prof. K. Sri Rama Krishna, Principal, ANITS and Prof. R. Srikanth, HOD, Chemical Engineering along with faculty and students. Principal appreciated the RACE coordinators for taking this initiative to educate the nearby villagers. Students campaigned and educated the villagers of Nammi-vani peta, Sangivalasa and Thalavalasa about the adverse effects of having an open drainage system, open cattle drinking pots and water pots with open lids.

The mosquitoes breed in these containers with open lids and act as carriers for diseases like malaria and dengue. Students also spread the awareness that the villagers have to follow a dry day on Friday by emptying all the containers carrying water such that the breeding of mosquitoes will be prevented. A total of 83 students participated in the awareness program educating the villagers.



**Figure 1:** Students visiting village households and educating about mosquito breeding and its effects



**Figure 2:** Students educating villagers in nammivanipeta

## Events Conducted

### Technical Symposium-CHEMFLARE 2022

The Department of Chemical Engineering, ANITS has organized a two day National Level Student Conference Chemflare 2k22 during 21st April – 22nd April, 2022. With a total participation of 51 students, of which students are from GPCE, RVR & JC, JNTUK, MVGR GVP and GMRIT. We saw more enthusiasm and an increase in the number of participants than last year. With a total of two technical paper presentation sessions, a poster session, how do you react, technical treasure hunt and various spot events, the participants were given various exciting and demanding platforms, by which they were able to improve their skills and knowledge. With a total of 11 prototype models, 18 papers and 6 posters are presented, the competition was indeed tough. Students were highly enlightened with technical events and spot events.



Fig 1: Prize distribution to the winners during CHEMFLARE-2022

## Report on the activity conducted as a part of MoU with Veedhanta Biotech Pvt Ltd, Visakhapatnam

Sri B. V. A. Purshotham Patrudu, Director, Veedhanta Biotech Pvt Ltd Visakhapatnam supported by providing *Aspergillus niger* and *Saccharomyces cerevisia* cultures. With these cultures 2 experiments in the Food bio chemistry and microbiology laboratory were conducted for M. Tech. Food Processing Technology students. On behalf of the Department of Chemical Engineering, ANITS Dr. Ch. Anil, HoD, Chemical Engineering thanked Sri B. V. A. Purshotham Patrudu for supporting the department as a part of industry institute interaction and Memorandum of Understanding.

## Faculty Achievements

### NPTEL COURSES BY FACULTY

1. Prof.R.Srikanth, Chemical, Successfully completed the NPTEL online course title "Aspen Plus Simulation software-a Basic Course for Beginners" in the duration of July-Oct 2021 (12 weeks).
2. Dr.Ch.Anil, Associate Professor, Chemical, Successfully completed the NPTEL online course title "Membrane Technology" in the duration of Jan-April 2022 (12 weeks).
3. Dr. China Malakondaiah, Assistant Professor, Chemical Successfully completed the NPTEL online course title "Polymer reaction engineering" in the duration of Jan-April 2022 (12 weeks)for the duration of 12 weeks.

### FACULTY PARTICIPATION IN STTPs, WORKSHOPS & FDPs

1. Prof. S. Subba Rao, Chemical, ANITS has participated in STTP program on "Chemical Engineering in Industry- Spectrum" organized by Anurag university, Hyderabad during 3rd December 2021.
2. Prof. R.Srikanth, Chemical, ANITS has participated in STTP program on "Safety & Industrial Hygiene" organized by GMRIT, Rajam, during 22nd-26th June 2021.

3. Prof. R.Srikanth, Chemical, ANITS has participated in STTP program on “Sustainable Nanotechnologies SNT-2022” organized by AICTE, during 18th-22nd, Jan-2022.
4. Prof. R. Srikanth, Dr. Anjali Dasari, Mr. M. Koteswara Rao, Ms. S Harika, and Mr. B. Pradeep Santosh Kumar, Assistant Professor, Chemical, ANITS has participated in FDP program on “Novel Applications of Chemical engineering” organized by MVGRCE, Vizianagaram, during 15th-19th July, 2021.
5. Dr.Ch.Anil, Associate Professor, Chemical has participated in STTP program on “National intellectual Property-Awareness Mission-STTP” organized by Intellectual property Office, India (Online), during April 26th 2022.
6. Dr.Ch.Anil, Associate Professor, Chemical, has participated in FDP program on “Polymer Matrix based Nanostructures for Targeted Drug Delivery Application” organized by AICTE, during 07th-11th, Feb-2022.
7. Dr.Anjali Dasari, Assistant Professor, Chemical, has participated in a work shop “solid Waste” organized by Delhi Research Implementation, during July 30th-31st, 2021.
8. Mr. B Pradeep Santosh Kumar, Mr. M. Koteswara Rao and Ms. S Harika, Assistant Professor, Chemical, ANITS has participated in FDP program on “Research Trends in Separation & Purification Techniques” organized by AICTE during 13th-17th Sep, 2021.

### FACULTY PUBLICATIONS

1. B. Pradeep Santosh Kumar, Koteswara Rao Maradana, Abhishek Reddy P and R. Srikanth published a research paper entitled “Simulation and Optimization of Natural Gas Processing Plant Using ASPEN-HYSYS” in the Journal of Emerging Technologies and Innovative Research (JETIR) in June 2022. The paper was published in Volume 9, Issue 6, with ISSN/SBN Number 2349-5162.
2. Harika Sunkara, C. M. Kaniganti, Vivek Inna, Sampath Kumar P. published a research paper entitled “Alkaline Extraction of Silica from Agricultural Waste of Rice Husk” International Journal of Research and Analytical Reviews (IJRAR) in June 2022. The paper was published in Volume 9, Issue 2, with ISSN/SBN Number 2348-1269.

### FACULTY PAPER PRESENTATION IN CONFERENCE

1. Mr.B.Pradeep Santosh Kumar, Asst.Prof, Chemical has presented a paper titled “A review on the performance of Proton Exchange Membrane Fuel Cell” in two Day International Conference on RECENT INNOVATIONS IN CHEMICAL AND BIOLOGICAL ENGINEERING (RICBE-2k21) organized by RGUKT Nuzvid, during 16th & 18th of September, 2021.
2. Dr.Anjali D, Asst.Prof, Chemical has presented a paper titled “Removal of heavy metals from waste water using low cost adsorbent” in two Day International Conference on RECENT INNOVATIONS IN CHEMICAL AND BIOLOGICAL ENGINEERING (RICBE-2k21) organized by RGUKT Nuzvid, during 16th & 18th of September, 2021.

### STUDENT ACHIEVEMENTS

1. B. Pradeep Santosh Kumar, Koteswara Rao Maradana, Abhishek Reddy P and R. Srikanth published a research paper entitled “Simulation and Optimization of Natural Gas Processing Plant Using ASPEN-HYSYS” in the Journal of Emerging Technologies and Innovative Research (JETIR) in June 2022. The paper was published in Volume 9, Issue 6, with ISSN/SBN Number 2349-5162.
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3. Mr. Anudeep Naidu, IV/IV B.Tech, Chemical has presented a paper titled “Desalination of sea water solar concentrators” in two Day International Conference on Water Management organized by All India Council For Technical Education, New Delhi, during 7th-8th Feb, 2022.
4. Ms.K.Tejaswi, Ms.Sravani Satyala, Mr.T.Manikanta, Mr.L.Rammurthy, Mr.IVRKNS Aniketh, Mr. BVNSG. Sudarshan, Mr. P. Yeswanth Sai Kumar, Ms.V.Chetana, Ms.D.Lavanya, Mr. Anudeep Naidu, Ms.V.Sindhuja, Mr. Vinay Guna Sekhar, Ms. K.Likitha, and Mr. T. Sai Kiran of IV/IV B.Tech, Chemical has presented a paper on Two day online National Level Chemical Engineering Student Meet organized by IICHe RVR & JCCE - Student Chapter, Check-2022 during 14th-15th March, 2022.