



Indian Institute of Chemical Engineers (IICChE)
Students' Chapter

@

SASTRA Deemed to be University

Thanjavur, Tamil Nadu 613401

Cordially invites you to

National Conference on Advances in Process Engineering



20th February to 7th March 2021

Mr. S. Srinivasan
Chairperson
IICChE Students' Chapter,
SASTRA

Dr. V. Ponnusami
Associate Dean
Chemical Engineering
SCBT, SASTRA

PROGRAM SCHEDULE

Date and Day	Time	Session
20th February, Saturday	10:30 h – 11:00 h	Inauguration
	11:00 h - 12:00 h	<p style="text-align: center;">Invited Lecture-1</p> <p style="text-align: center;">Prof. Ashwin W.Patwardhan, HoD & Professor, Department of Chemical Engineering, Institute of Chemical Technology, Mumbai</p> <p style="text-align: center;">“Tea Infusion”</p>
	14:00 h – 15:00 h	<p style="text-align: center;">Invited Lecture – 2</p> <p style="text-align: center;">Dr. Hanno Brümmer Senior Vice President, Polyurethanes Global Head of Production and Technology Covestro, Leverkusen, Germany</p> <p style="text-align: center;">“Process Innovation in Chlorine Production”</p>
	18:00 h – 19:00 h	Chemathlon Round -1
21st February, Sunday	10:30 h – 12:30 h	Oral Presentation Session-1
22nd February, Monday	11:00 h - 12:00 h	<p style="text-align: center;">Invited Lecture – 3</p> <p style="text-align: center;">Dr. Dev Mohun Mohunta, Commercial, Chemical And Development Co., Chennai, India</p> <p style="text-align: center;">“Knowledge Based Innovation and Development In Chemical Engineering and Processing”</p>
	15:30 h – 17:30 h	Oral Presentation Session - 2

PROGRAM SCHEDULE

Date and Day	Time	Session
27 th February, Saturday	11:30 h – 12:30 h	<p style="text-align: center;">Invited Lecture- 4</p> <p style="text-align: center;">Dr. Wyyuru Amarnath, Managing Director, Sri Sankara Weaving Private Limited, Chairman of Kwinox Toys and Games, Chairman of Sai Invent Consultancy, Chennai, Tamil Nadu, India</p> <p style="text-align: center;">“Opportunities for Chemical Engineers in Setting up Successful Industries”</p>
28 th February, Sunday	10:30 h – 12:30 h	Know Your Product
		Oral Presentation Session-3
6 th March, Saturday	18:30 h – 20:30 h	Chemathlon Round-2
7 th March, Sunday	10:00 h – 16:30 h	DWSIM Workshop
	17:00 h – 18:00 h	Valediction

Oral Presentation Sessions

Session No: 1

Judge: Dr. S. Rangabhashiyam

Date and Time: 21st Feb 2021, 10:30 h – 12:30 h

G-Meet Link: <https://meet.google.com/tno-vuno-uix>

Abstract ID	Authors	Institute	Title
ABS001	Yogeshwar Nighojkar Rujuta Dhote	Dr Dy Patil Institute of Engineering Management and Research	Formulation of moisturizing Cream from natural dyes in marigold
ABS010	Sujana K. Vaishnavi K. V. Sai Soumya Sri M.	Gayatri Vidya Parishad College of Engineering	ZLD-A sustainable solution for global water scarcity
ABS011	Maha Devaa Sri Vishnu S. Martin J. Manikkaraj A.	Kongu Engineering College	Treatment of Wastewater from Textile Industry
ABS014	Dhinakar C. Karthikeyen CS. Gnana Aravindh R.	Kongu Engineering College	Reuse and recycle of solid and liquid waste management
ABS015	Kawin Prasad N. Dinesh R. Keerthivasan P.	Kongu Engineering College	Treatment of Tannery Effluent Using A Carbon Composite
ABS017	Chandira Kumaar P. Harishkumar R. Manoj G.	Kongu Engineering College	Membrane Distillation in Wastewater Treatment Applications - A Review
ABS019	Kolluru Sree Manaswini	Andhra University	Green synthesis of Zinc Oxide nanoparticles and its adsorptive studies on removal of Congo red dye

Oral Presentation Sessions

Session No: 2

Judge: Dr. Alagesan V

Date and Time: 22nd Feb 2021, 15:30 h – 17:30 h

G-Meet Link: <https://meet.google.com/qgm-oux-b-qit>

Abstract ID	Authors	Institute	Title
ABS003	Aditya T. Rishabh M. Aritro S.	VIT VELLORE	Leakage Detection in Industrial Pipelines - A Novel Approach to Intelligent Monitoring System
ABS006	Harini V. J.	SASTRA Deemed to Be University	Recent trend in chemical technologies- Self optimizing plant
ABS008	Melvin Jones G. Harini S. Kiruthick D. Nithishkumar R. Abiprakash M.	Kongu Engineering College	Understanding of vertical crystallizer and flow phenomena for crystal suspension
ABS021	Bharath N. Leo Megavel G. Gowtham B.	Kongu Engineering College	Performance Enhancement and Reduction of Exhaust Missions in Catalytic Converter Using the Metallic Oxide Catalysts
ABS022	Vandana Kumari Jha	IIT (ISM) Dhanbad	Enhanced Heat Dissipation under Natural Convection using Perforated Helical Fin
ABS024	Balaswetha Karthick C.	Kongu Engineering College	Preparation and Estimation of characteristics of Cement partially replaced with Prosopis Juliflora Ash

Oral Presentation Sessions

Session No: 3

Judge: Dr. Gautam B. Jegadeesan

Date and Time: 28th Feb 2021, 10:30 h – 12:30 h

G-Meet Link: <https://meet.google.com/baz-jpxa-vvb>

Abstract ID	Authors	Institute	Title
ABS004	Hemanth P.	Siddaganga Institute of Technology	Fe ₂ O ₃ nanostructures, Fe ₂ O ₃ -Mn ₃ O ₄ and Fe ₂ O ₃ -Cu ₂ O composites with excellent photoinduced properties under visible light
ABS005	Gautam S. B. Kamsonlian S.	MNNIT, Allahabad	A Short Note on Arsenic: Sources and its Health Effects
ABS007	Guna S. Hamrish S. Harishraj S.	Kongu Engineering College	Carbon Sequestration
ABS009	Jasneet Kaur Pala Abichal Ghosh Tushar Damani	BITS Pilani, Goa	Artificial Intelligence (AI) – Machine Learning (ML) Based Framework for Optimal Design of Interfacially Polymerized Thin Film Nanocomposite Membranes for Desalination
ABS012	Hariharan S. P. Venkatarangan V. Jonna J. Issac J. Rastogi S. Goswami M.	VIT VELLORE	Application of Resilience Engineering in the Indian Railways: A Failure Mode– Cause-Effect Analysis
ABS016	Gaurav N. Nikhare	Datta Meghe College of Engineering (DMCE)	Nanomedicine, Nanotechnology in Medicine
ABS018	Adhavan K. Vignesh P. Mahendran R.	Anjalai Ammal Mahalingam Engineering College	Preparation and Characterizations of HPMC and Fly ash-based Films with enhanced Physico-Chemical properties

TEA INFUSION

Prof. Ashwin W Patwardhan,

HoD & Professor, Department of Chemical Engineering,
Institute of Chemical Technology, Mumbai, India.

E-mail ID : aw.patwardhan@ictmumbai.edu.in

Date: 20th February 2021

Time: 11:00 h to 12:00 h IST

Platform: G-meet

Link: <https://meet.google.com/zqx-kvpm-hon>



Prof. Ashwin W. Patwardhan received his PhD in Chemical Engineering in 1998. He pursued his M.S. in Chemical Engineering in 1995. He was the gold medalist of University of Mumbai during his undergraduation. His areas of expertise include Membrane Separations, Computational Fluid Dynamics, Transport Phenomena and Multiphase Reactor Mixing. His ongoing research projects include Synthesis of Carbon Nanotubes, Characterization and Design of Jet Loop Reactors, Advanced Membrane Separation Processes, CFD Modelling of Pulsed Extraction Columns, Thermodynamics of Extraction Systems and Modeling of Multiphase flow. Over the years, he has guided 13 students in completing their PhD. In addition, 44 students have completed their Masters under his guidance. Being an active researcher, he has published 84 papers in his distinguished career spanning over 20 years. He has been recognized by the Industrial & Engineering Chemistry Research Journal for making notable contributions in research and review, and is a recipient of their “2020 Excellence in Review Award”, making this the fourth time he has received this prestigious award while he had received this recognition three times before during the 2016-19 period. He has also offered several training programs in his area of expertise, helping both his students and colleagues alike to gain new perspectives and enhance their learning and understanding of Chemical Engineering.

PROCESS INNOVATION IN CHLORINE PRODUCTION

Dr. Hanno Brümmer

Senior Vice President, Polyurethanes
Global Head of Production and Technology Covestro,
Leverkusen, Germany
E-mail ID: hanno.bruemmer@covestro.com



Date: 20th February 2021

Time: 14:00 h to 15:00 h IST

Platform: G-meet

Link: <https://meet.google.com/gqd-kwtr-yyf>

Dr. Brümmer received his PhD in Chemistry in 1995. He finished his diploma in Chemistry from Westfälische Wilhelms University, Münster in 1992. Hanno Brümmer is a PhD chemist and started at Bayer in 1996. In his career, he has held positions of increasing responsibilities in production-included assignments in several locations in Germany as well as in Baytown, Texas, USA. Since 2015, Dr. Hanno Brümmer has been Senior Vice President as the Global Head of Production and Technology in the Business Unit Polyurethanes at Covestro. This includes Isocyanates, Polyether Polyols as well as the basic chemicals like Chlorine. Hanno Bruemmer is a member of the Management Board of the World Chlorine Council (WCC), Eurochlor and of the European Institute of Industrial Leadership (EIIL).

KNOWLEDGE BASED INNOVATION AND DEVELOPMENT IN CHEMICAL ENGINEERING AND PROCESSING

Dr. Dev Mohun Mohunta,

Commercial, Chemical and Development Co.,

Chennai, Tamil Nadu, India

E-mail ID: dmm@ccdcindia.com



Date: 22nd February, 2021

Time: 11:00 to 12:00 h IST

Platform: G-meet

Link: <https://meet.google.com/tdz-ikxb-kxo>

Dr. Dev Mohun Mohunta received his doctorate from the Alagappa College of Technology, University of Madras, in the year 1968, where he had a brief stint in teaching as well. He obtained his undergraduate from the same institute, in the year 1961. He has been one of the pillars of the chemical industry in India, having been associated with the industry for nearly 50 years, during which time he has made invaluable contributions to the overall development of the industry in India. His professional work has been in the areas of innovation and development making significant contributions like Changing Batch processes to Continuous processes, scaling up of processes from the experimental to the commercial level and Reduction of footprint of plants by reduction in plant size or increase in plant capacity. Some of his process specific works in the industry include Production of 16 Strontium chemicals from Strontium ore in Ariyalur and Production of Azadirachtin, a natural pesticide, from Neem trees, the plant for which is located in Cuddalore. He has also been involved in quite a few projects to reduce VOC emissions from plants, project reports for the saving of Lake Qarun in Egypt, integrated production of chemicals and has been involved in writing about use and efficacy of drugs for pharma companies for a short period. Apart from these, he served as the Resource person for UNEP, UNDP and GIZ, for the phasing out of Carbon Tetrachloride, which is an ozone depleting substance. He has held notable positions in the past as the Chairman of the Indian Institute of Chemical Engineers, Chennai chapter and also as the Vice President of the Chemical Industries Association, helping the Indian chemical industries move forward with innovations and development in their production. Dr. DM Mohunta struck a balance of his stellar professional with a rich personal life as well. He loves to keep the history of the world at his fingertips, and also is an avid follower of Indian tradition. He has a unique attraction towards Indian Theogony, and loves to ponder upon the evolution of Gods and Goddesses in Hinduism.

OPPORTUNITIES FOR CHEMICAL ENGINEERS IN SETTING UP SUCCESSFUL INDUSTRIES

Dr. Wyyuru Amarnath,

Managing Director, Sri Sankara Weaving Private Limited,

Chairman of Kwinox Toys and Games,

Chairman of Sai Invent Consultancy,

Chennai, Tamil Nadu, India

E-mail ID: sai.invent2succeed@gmail.com



Date: 27th February 2021

Time: 11:30 h to 12:30 h IST

Platform: G-meet

Link: <https://meet.google.com/mkh-jeee-ddv>

Dr. Wyyuru Amarnath received his Doctorate from the Institute of Innovative Design, Russia. He pursued his Chartered Engineer Degree at the Institution of Engineers, India. He completed his B. Tech in Textile Technology from Alagappa College of Technology, Guindy, Chennai. His areas of expertise include Textile Technology and Innovation in Product Design and Development. He is a certified TRIZ Level 1 teacher by the Institute of Innovative Design, Russia and a visiting faculty in various renowned global educational institutions. He is a recipient of National, Regional and State Awards in the field of Innovation. In 2016, his startup was one among the top 3000 startups in India in SMART FIFTY launched by IIM Calcutta Innovation Park and DST. He also has 10 patents in his field of expertise. As a person with rich entrepreneurial experience, he is currently the Managing Director of Sri Sankara Weaving P Ltd, the Chairman of Kwinox Toys and Games, and is also the Chairman of Sai Invent Consultancy. Being a member of Bharatiya Yuva Shakti Trust (BYST) for over 20 years, he has mentored several budding entrepreneurs and has received an Appreciation award for the same in 2011. He has also contributed to the Prime Minister's Office and the Government of India with the "Transform India" Initiative by providing ideas like refurbishment of decommissioned railway coaches to serve as classrooms, ideas to increase revenue through GST, Conservation and Transportation of Fresh Water using atmospheric pressure being a few of them.