



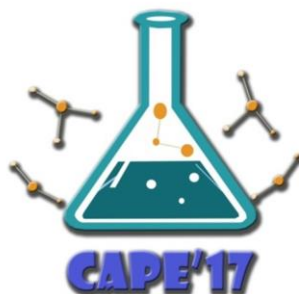
Indian Institute of Chemical Engineers  
(IICChE)

SASTRA University Student Chapter

---

cordially invites you to

National Conference on Advances in Process  
Engineering



CAPE - 2017

**Date:** 6<sup>th</sup> – 7<sup>th</sup> October 2017

**Venue:** JVC Auditorium

School of Chemical and Biotechnology  
SASTRA University, Thanjavur 613 401

Mr. M. Sakthi Narendran  
Chairperson, IICChE Student Chapter

Dr. R. Kumaresan  
Associate Dean, Chemical Engg.

Day 1 : 6<sup>th</sup> October 2017 (Friday)

Venue : JVC Auditorium

Time	Session	Speaker
7:00 - 9:00 h	Registration	
9:00 - 9:30 h	Inauguration	
9:30 - 10:30 h	Plenary Lecture	Dr. Raghunathan Rengaswamy, Professor, IIT-Madras Title: Process System Engineering – Key to Many Locks.
10:30 - 11:00 h	High Tea	
11:00 - 12:00 h	Invited Lecture – 1	Mr. P. S. Sathis Kumar, ISRO Propulsion Complex (IPRC) Title: Scope for Chemical Engineering at ISRO.
12:00 – 13:00 h	Invited Lecture – 2	Mr. P. S. Ramachandran, Executive Director (Projects), BPCL Title: Bridge the gap between Academia and Industry.
13:00 – 14:30 h	Lunch	
14:30 – 16:00 h	OpenModelica Workshop : Session 1	
16:00 - 16:15 h	High Tea	
16:15 – 18:00 h	OpenModelica Workshop : Session 2	

Day 2 : 7<sup>th</sup> October 2017 (Saturday)

Venue : JVC Auditorium

Time	Session	Speaker
9:00 – 10:00 h	Invited Lecture – 3	Mr. G. Vishwanathan, Freelance Consultant on Safety Title: Introduction to Pinch Technology.
10:00 – 10:30 h	High Tea	
10:30 – 12:30 h	Oral Presentation	
12:30 – 13:30 h	Lunch	
13:30 – 15:30 h	ChemQuiz	
15:30 – 16:00 h	High Tea	
16:00 – 17:00 h	Valedictory Address	Dr. V. Vijayagopal, Professor & Head, Annamalai University Title: Basics of Chemical Engineering.
17:00 – 17:45 h	Prize & Certificate Distribution	
17:45 – 17:55 h	Vote of thanks	
17:55 h	National Anthem	
End of Conference		

Oral Presentation

Venue: JVC Auditorium

Abstract Number	Name of the Participant	Topic
ABS001	Mr. R. Mahendran Mr. K. Nirmal Kumar Mr. M. Vijayaragavan Mr. P. Senthil raj (Anjalai Ammal Mahalingam Engineering College)	Nano-particles in High-Flux Reverse Osmosis Membranes
ABS005	Ms. Supraja Krishnan Ms. Vidarshana Siddarthan (Allagapa College of Technology)	Oil spills that affect the environment
ABS007	Ms. Ciji Sara Mathews Ms. V.Chitra Devi Mr. Sanjay P Kamble Mr. S. Mothilb (Kongu Engineering College)	Removal of phenol from Waste Water using Advanced Technologies

ABS008	Mr. V. Gokulnath Ms. Sajja Pavitra (SASTRA University)	Extracting hydrocarbons fuel products from plastic material
ABS009	Mr. V. Gokulnath Ms. J. Divya (SASTRA University)	Co-Processing

DAY - 1

06/10/17 09:30–10:30h

Plenary Lecture

Venue : JVC Auditorium

Dr. Raghunathan Rengaswamy,

Professor, Department of Chemical Engineering,

IIT Madras.

Dr. Raghunathan Rengaswamy is a Professor at the Department of Chemical Engineering, IIT Madras. He is also a co-Founder and Director of Gyan Data Pvt. Ltd. (GDPL), a high tech start-up in the area of data analytics located at IIT Madras Research Park. Prior to this, he was Professor, Chemical Engineering and co-director of the Process Control and Optimization Consortium (PCOC) at Texas Tech University, Lubbock, TX USA, Associate and full Professor at Clarkson University, Potsdam, NY and Assistant Professor at IIT Bombay, Mumbai, India. He has also been a visiting professor at Purdue University, USA, University of Delaware, USA and University of Alberta, Canada. He has Bachelor's degree in Chemical Engineering from IIT Madras, India and a PhD in Chemical Engineering from Purdue University, West Lafayette, IN, USA. His PhD work explored AI approaches and leveraged syntactic pattern recognition for identifying abnormalities from a variety of data types. The syntactic pattern recognition approach used both context dependent and independent grammar based on well-defined primitive sets for error correction to increase the robustness of the underlying algorithms. His PhD work also explored connections between statistical classifiers and neural network approaches. Based on similar themes, his current major research interests are in the areas of Data Analytics, Fault Detection and Diagnosis (FDD), development of Sensor Placement (SP) algorithms for FDD, and Controller Performance Assessment (CPA). His other research interests are in energy systems and droplet microfluidics. He has worked in these areas for more than twenty years and has published more than 100 international journal articles. Overall, his work has been cited more 7000 times with an hindex of 37 (Google Scholar). He was the recipient of the Young Engineer Award for the year 2000 awarded by the Indian National Academy of Engineering (INAE) for outstanding engineers under the age of 35. He guided a BS project "Qualitative Simulation in Process Engineering" that won an award as one of the most innovative thesis at Bachelor's level (all disciplines) awarded by INAE. His paper on fault diagnosis was awarded the CAST Directors' Award for the Best Poster Presentation at the AIChE Annual meeting in Los Angeles, Nov 2000. He was a keynote speaker at the 4th International Federation of Automatic Control (IFAC) workshop on "On-line Fault Detection and Supervision in the Chemical Process Industries" held in Korea, 2001. A paper that he co-authored was chosen by the International Federation of Automatic Control (IFAC) for the Best Paper Prize, for the years 2002-2005, in Engineering Applications of Artificial Intelligence Journal in the category - Application-oriented paper on Symbolic AI Approaches. His research has been funded by federal and state agencies such as the US-DOE, NSF, ACS-PRF, NYSERDA, US-DOD, DST, NMRL and companies such as Honeywell, Nanodynamics, GE and KBR. A company SysEng LLC, started at Lubbock TX, USA based on his research work on droplet microfluidic system simulation and optimization was granted a NSF STTR Phase 1 award.

Mr. P. S. Sathis Kumar,

SCI – SF,

VSSC/ISRO.

Mr. P. S. Sathis Kumar completed his B.Tech degree in Chemical Engineering in Coimbatore Institute of Technology in the year 2002 and did his masters degree in Chemical Engineering in Indian Institute of Science, Bangalore in the year 2011. He joined Satish Dhawan Space Centre, ISRO, Sriharikota in 2003 and got transferred to Vikram Sarabhai Space Centre in 2007. He is presently the Manager- Propellant casting and curing facility, Rocket Propellant Plant, VSSC. He is responsible for solid propellant production, development of new propellant formulations, burn rate catalysts and metallised gel propellants. He has four publications in international journals and six publications in international conferences. He is the Gold medallist from IISc – Chemical Engineering department in the year 2011 and the honorary recipient of the ISRO- Young scientist Award for the year 2013. He received the Shri. G.Ravindranath Endowment award – from SBF, VSSC in the year 2017. He is an active member of ISNT and is the Secretary for IChE- TVRC (2015-2017). He is also the Jt. Secretary of High Energy Materials Society of India, Trivandrum Chapter.

Mr. P. S. Ramachandran,

Executive Director (Projects), BPCL.

Mr. P. S. Ramachandran is a Mechanical Engineering graduate from College of Engineering, Trivandrum and passed out in 1981.

He joined the erstwhile Cochin Refineries Ltd in 1981 and has grown with the Company. Presently he is in-charge of all the major projects of the Refinery and working as Executive Director of Bharat Petroleum Corporation Ltd., Kochi Refinery. He has immense experience of having led successful teams in the Refinery in various roles such as design, engineering, materials, shift administration, projects, marketing, etc. He has been instrumental in handling almost all the major expansion projects of the Refinery. The latest project which has been completed is the Integrated Refinery Expansion Project with a capital outlay of Rs. 16,504 crores which was completed in a very inspirational manner surpassing many of the world standards of project execution.

Outside the office, his pass times include music and bhajan. For the past 30 years he has been instrumental in making music and bhajan programmes throughout the country and abroad. He is running an institution viz., Sambradaya Bhajan Vidyalaya and taking classes to the masses and has been completing 5 years.



DAY - 2

07/10/17 09:00 – 10:00 h

Invited Lecture – 3

Venue : JVC Auditorium

Mr. G. Vishwanathan,

Freelance Consultant on Safety.

Mr. G. Vishwanathan is a graduate chemical engineer from Annamalai University in 1969. He holds a postgraduate diploma in Management from All India Management Association, New Delhi in 1987. He is also a Certified Energy Auditor from Bureau of Energy Efficiency, Government of India since 2005.

He started his career with Calico Chemicals & Plastics, Bombay and then moved to Nylon-6 manufacturer, Century Enka Ltd, Pune in 1970. He joined M/S. Indian Petrochemicals Corporation Ltd., Baroda in 1977 and retired voluntarily in 2003 as Deputy General Manager (Technology).

He has travelled to Japan, USA, Italy, Netherlands and Iran on official assignments.

He has worked as Process Consultant with L&T, Bombay in their Oil & Gas Special Projects division in 2005 and with L&T Chiyoda, Baroda in 2006 before joining Technip India, Chennai as Project and Process Consultant in 2007.

Since 2010, he is a Freelance Consultant on Safety, chairing Hazop, Hazid, SIL, FMEA and RAM studies at Bangkok, Bahrain, Abu Dhabi, Dubai, Kuwait, Qatar and Kazakhstan on behalf of DNV GL, MS Chola, Tebodin Middle East, TUV-SUD and few other companies.

He has been a regular invited speaker at the International Conferences on Safety, ICS 2012, 2014 and 2017 organized by IIT Gandhinagar and at the Indian Institute of Chemical Engineers, Baroda Chapter.

He is a Tennis Player, having represented IPCL in the Public Sector Sports Control Board Tennis Tournaments since 1980. He was a Veteran Champion (people above 60 years) in 2015 for Baroda Rural under Khel Mahakumbh, Gujarat State.

07/10/17 16:30 – 17:30 h

Valedictory Lecture

Venue: JVC Auditorium

Dr. V. Vijayagopal

Head, Department of Chemical Engineering,

Annamalai University.

Dr. V. Vijayagopal is the Head and a Professor at the Department of Chemical Engineering at Annamalai University. He has completed his Bachelor's, Master's degree and PhD in Chemical Engineering from Annamalai University, Tamil Nadu in the years 1980, 1982 and 2002 respectively. He also has a Master of Science degree in Yoga from Annamalai University. He has published 7 International papers and 13 National papers; has attended several conferences - 1 International conference and 25 National conferences. He has actively organized several conferences, seminars and workshops comprising of 2 international and 3 national level events. He has served as a program officer for six years in the National Service Scheme.

OUR PROUD SPONSORS:



IndianOil



Ponmani & Co



OUR ENERGY PARTNER:

