



## 4<sup>th</sup> International Conference

on

## Recent Advancements in Chemical, Environmental and Energy Engineering (RACEEE 2019)

February 14 & 15, 2019

Organized

by



Department of Chemical Engineering  
SSN College of Engineering  
Chennai, India

### ABOUT SSN COLLEGE OF ENGINEERING

Sri Sivasubramaniya Nadar College of Engineering (SSN CE) is the outcome of the vision and initiative of **Dr. Shiv Nadar**, Chairman of HCL Technologies Ltd. and a pioneer in the field of Information Technology. The Institution reflects the ideals of its founder and seeks to achieve excellence as an academic institution and advanced research centre. The Management Committee members **Mr. R. Srinivasan**, Chairman, SSN Institutions, **Mrs. Kala Vijayakumar**, President, SSN Institutions and the Principal **Dr. S. Salivahanan** facilitate the good governance of the college.

SSN CE was established in 1996 on a sprawling campus of 250 acres with over 1.8 million square feet built up area comprising of aesthetically designed buildings and a technology driven learning environment. SSN is the home for some of the best programmes in engineering. The institution offers eight B.E. / B.Tech. degree programmes in Chemical Engg., EEE, ECE, CSE, IT, Biomedical Engg., Mechanical Engg., and Civil Engg.. It also offers eleven PG degree programmes in Environmental Science & Technology, Power Electronics & Drives, Communication Systems, Computer Science & Engineering, Applied Electronics, Computer & Communication, VLSI design, Software Engineering, Manufacturing Engineering, Energy Engineering, Medical Electronics and in addition to MBA.

The admission is done purely on the basis of **merit** with over 15% of student body receiving scholarships worth Rs. 4 crores every year to meritorious and deserving students.

The Institution is certified with ISO 9001:2015 and all eligible programmes are accredited by NBA. Recently our college was awarded the **highest grade A+** by the National Assessment and Accreditation Council (NAAC).

The University Grants Commission has granted autonomy status under category 1 based on the NAAC score of 3.55 from the academic year 2018-19. In 2018, the Institution has been ranked 36 amongst all engineering colleges in India by NIRF, MHRD. The College has consistently stood top among colleges affiliated to Anna University.

### ABOUT THE DEPARTMENT

The Chemical Engineering Department offers B.Tech degree programme in Chemical Engineering and M.Tech degree program in Environmental Science & Engineering and recognized as a research centre by Anna University, Chennai to carry out cutting edge research. The Department comprises Two Professors, Ten Associate Professors and Two Assistant Professors and is well equipped with the state-of-the art laboratories and softwares like ChemCAD, ANSYS, AspenPlus, COMSOL and MATLAB. Majority of the faculty have Doctoral qualification in specialized research area in Chemical Engineering fields and received a **research grant worth Rs.67.35 Lakhs from DST-SERB, New Delhi, India**. The Department organizes International Conferences in the month of February every year and National Level Students **Symposium "INVENTE"** every year in the month of August. Other events include workshop on Pollution Control, ChemCAD, CFD, MATLAB, Nanotechnology and Energy. The focus areas of research include Abatement of Water Pollution, Nanotechnology, Green Solvent, Molecular Modeling, Post Combustion CO<sub>2</sub> Capture, Process Development, Clean Coal Technology, Process Intensification using Ultrasound, Biomass Utilization and other novel fields.

### ABOUT THE CONFERENCE

The 4<sup>th</sup> International Conference on Recent Advancements in Chemical, Environmental and Energy Engineering (RACEEE 2019) is organized by academics and researchers belong to various scientific areas of Chemical and it's allied fields. The conference aims to create an International forum for academics, researchers and scientists from world wide to discuss, exchange knowledge about the issues, remedies and demands related to chemical, environmental and energy engineering. This conference includes the plenary lectures from renowned key note speakers, oral/poster presentation sessions and an attractive social and cultural program. All the accepted papers will be published in the book of abstracts of the conference. The selected papers can be further considered for publication in **Scopus/Thomson Reuters Indexed Journals**.

## Submission of Abstracts

The abstracts should be uploaded using the link given in the conference website. Abstract should be not more than 400 words and must be containing title, name of author (s), name of Institution, Email ID (corresponding author), Mobile Number, keywords typed in MS word in A-4 size paper. Font used should be of size 12 in Times New Roman with single spacing. Detail regarding instructions for author(s) for full-length paper will be notified after acceptance of abstracts. It is compulsory for atleast one author to get registered for the conference.

**Note:** In the abstract, the category (Oral / Poster) of presentation should be clearly mentioned. The organizing secretariat reserves rights to make final decision in all matters related to the conference.

The selected papers can be further considered for publication in **Web of Science/Scopus/Thomson Reuters Indexed Journals**.

### List of Journals:

- 1. International Biodeterioration & Biodegradation (IBB Special Issue) - IF: 3.56**
- 2. Environmental Science and Pollution Research (ESPR Special Issue) - IF: 2.8**
- 3. Chemical Engineering Communications (CEC Special Issue) - IF: 1.28**
- 4. Journal of Energy, Heat & Mass Transfer**

### Important Dates:

**Last date of receipt of abstract : 30 December 2018**  
**Notification of acceptance of abstract : 05 January 2019**  
**Receipt of full length paper : 15 January 2019**  
**Last Date for Registration : 31 January 2019**

## Theme of the Conference

The theme of the RACEEE 2019 conference is to *"Ignite, Inspire and Innovate Novel Technology in Chemical, Environmental and Energy Engineering for Sustainable Future Development"*, to promote young minds and their research abilities by providing

an International platform to interact with the experts in the field of Chemical, Environmental and Energy Engineering. This event is planned to explore & enlighten different applications in following field:

### Chemical Engineering :

Transport Processes  
Chemical Reaction Engineering  
Thermodynamics  
Process Modeling and Simulation  
Nanotechnology / Nano-composites  
Novel Separation Techniques  
Biotechnology / Biochemical / Enzyme / Biomedical Engineering  
Computational Fluid Dynamics (CFD)  
Process Control Strategies / Process Safety and Optimization  
Food Processing Technology  
Material Technology  
Polymer Engineering  
Computer Aided Design  
Fluidization Engineering  
Process Intensification / Catalysis / Photo Catalysis  
Micro-fluidics  
Colloids and Interfacial Engineering / Particle Technology  
Drug Delivery  
Fertilizer / Pulp / Textile / Leather Technology  
Metallurgical and Manufacturing Technology

### Environmental Engineering :

Wastewater Treatment  
Bioremediation  
Adsorption and Biosorption  
Physico-Chemical Treatment Methods  
Environmental Impact Assessment  
Advanced Oxidation Process  
Air Pollution Control/ Solid Waste Management  
CO<sub>2</sub> Capture Process / Solvent Development / Solvent Regeneration Techniques  
Ecology and Mitigation Engineering  
Population Studies  
Green Technology / Sustainable Development  
Clean Coal Technology

### Energy Engineering :

Petroleum Engineering  
Renewable and Non-Renewable Energy  
Fuels and Combustion  
Bio-refinery / Biomass / Bio-energy / Biomass Utilization  
Energy Storage and Conversion  
Nuclear Engineering  
Energy Conservation / Waste to Energy  
Thermal Engineering  
Pinch Technology  
Fuel Cell / Microbial Fuel Cell  
Coal Gasification / Coal Liquefaction  
Supercritical Fluids

## ORGANISING COMMITTEE

### CHIEF PATRON

Padma Bhusan Dr. Shiv Nadar, Founder, SSN Institutions  
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Mrs. Kala Vijayakumar, President, SSN CE

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Dr. P. Ramasamy, Dean Research, SSN CE

Dr. V. G. Idichandy,

Chief Mentor of Innovation and Incubation Center, SSN CE

### CONFERENCE CHAIR

Dr. R. Parthiban, Head, Dept. of Chemical Engg., SSN CE

### CONVENORS

Dr. B. Ambedkar

Dr. J. Dhanalakshmi

Dr. R. Anantharaj

### PROGRAMME COMMITTEE

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Former Dean - IAR, IIT Madras, India  
**Prof. Anil Verma**  
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IIT Roorkee, India  
**Dr. Suresh Pandian Elumalai**  
IIT Dhanbad, India  
**Dr. Sankar Chakma**  
IISER Bhopal, India

## Registration Fee per Person

International Participants	-	USD 250/-
UG & PG Student	-	INR 1500/-
Full time Research Scholar	-	INR 2500/-
Academician/Scientist	-	INR 3000/-
Industry Personnel	-	INR 5000/-

*[The registration fee does not include the accommodation. The Institute accommodation can be arranged as first come, first served (FCFS) basis]*

## Mode of Payment

### 1. Demand Draft

Payment should be made through a Demand Draft, drawn in favour of "*The Principal, SSN College of Engineering*", payable at Chennai.

### 2. Online Payment

Account Holder's Name: *The Principal, SSN College of Engineering*  
Bank Name : Tamilnad Mercantile Bank Ltd.,

Account Number :158100050070022  
Bank IFSC Code :TMBL0000158  
Bank MICR Code : 600060010  
Bank Code :158

## Address for Correspondence

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Conference Website: [www.ssnraceee2019.com](http://www.ssnraceee2019.com)



## Venue

**SSN College of Engineering**  
**Kalavakkam,**  
**Chennai- 603110, India**