

## ORGANIZING COMMITTEE

### CHIEF PATRON

Prof. G.D. Yadav, Padma Shri, Former Vice-Chancellor, ICT Mumbai

### PATRONS

Prof. N.S. Raghuvanshi, Director, MANIT Bhopal  
Prof. Siva Umamathy, Director, IISER Bhopal

### CHAIRMAN

Prof.M.K. Jha (President, IChE)

### VICE-CHAIRMEN

Mr. K.C. Sharma, General Manager, Lupin Pharmaceutical Ltd., Bhopal

Mr.Praveen Saxena(Vice-President, IChE)

Dr. N. Balasubramanian(Vice-President, IChE)

### ORGANIZING SECRETARIES

Dr. S. Suresh, MANIT Bhopal

Dr.Sankar Chakma, IISER Bhopal

### JOINT-ORGANIZING SECRETARIES

Dr.Subhajit Patra (Joint Secretary & Treasurer)

Dr. Jay Mant Jha

### STUDENT COORDINATORS

AnweshKulshreshtha Bablu Alawa

Utkarsh Singh YashrajSoni

Khushi Gupta Anasua Barman

Harshita Sharma Sukrant Bhatt

Nikhil Thakur

## LOCAL ORGANIZING COMMITTEE

Dr. Bharat Modhera Dr. Dharmendra Pandey

Dr.Rupak Kishor

Dr. Sunder Lal Pal Dr.Sumit H. Dhawane

Dr. Vijay K. Bulasara Dr.V. R. Dugyala

Dr. Rajeev Parmar Dr. M. K. Tripathi

Dr. K. Suresh

## NATIONAL ADVISORY COMMITTEE

Prof. Ashutosh Sharma, Coordinator, DST, Govt. of India & Professor, IIT Kanpur

Prof. A.B. Pandit, Vice-Chancellor, ICT Mumbai

Prof.SuddhasatwaBasu, Director, CSIR-IMMT

Prof. I. M. Mishra, IITISM-Dhanbad

Prof. P.K. Bhattacharya, Former Professor, IIT Kanpur & Former Director, RGIPT

Prof. V.S. Moholkar, FRSC, FICHEM, IIT Guwahati

Mr. Praveen Saxena (Vice President, IChE)

Prof. N. Balasubramanian (Vice President, IChE)

Dr.Avijit Ghosh (Honorary Secretary, IChE)

Dr. K.B. Radhakrishnan, (Honorary Jt Secretary, IChE)

Dr. Gaurav Rattan (Honorary Registrar, IChE)

Dr.M.P. Jain(Honorary Treasurer, IChE)

Prof.SuddhasatwaBasu(Honorary Editor, IChE)

Dr.Madhu Agarwal (Controller of Examinations, IChE)

Prof V.V.Basava Rao (Past President, IChE)

Mr. M.Venkateswara Rao (IChE Member)

Dr. GSV Ratnam, (IChE Member)

Prof Amitava Bandyopadhyay (IChE Member)

Mr M Ranga Rao, (IChE Member)

Dr T L Prasad, (IChE Member)

Dr.M.Rajasimman (IChE Member)

Prof.Sunando Dasgupta, IIT Kharagpur

Prof.Guruswamy Kumaraswamy, IIT Bombay

## IMPORTANT DATES

Submission of Extended Abstract	31 <sup>st</sup> July, 2021
Acceptance Notification	10 <sup>th</sup> August, 2021
Full Paper Submission	31 <sup>st</sup> August 2021
Last date of Registration	31 <sup>st</sup> August 2021
Conference Dates	24-25 <sup>th</sup> Sept., 2021

## CORRESPONDENCE

For further information, please contact:

Org. Secretary	Jt. Org. Secretary	Student Coordinators
8989005393	9748787224	9414975019
8011153037	9475177282	9131655109

Email: [schemcon2021@gmail.com](mailto:schemcon2021@gmail.com)

Please submit abstracts online and

For details & updates check the SCHEMCON2021

website: <https://conf.iiserb.ac.in/SCHEMCON2021/>

## ACCOMMODATION

Limited Accommodation may be arranged on request after paying additional charges on first-come first-serve basis. You may drop a request for accommodation on [schemcon2021@gmail.com](mailto:schemcon2021@gmail.com). Details will be uploaded soon.

Participants seeking their own accommodation, [Click Here](#) for the list of Hotels.

## 17<sup>th</sup> Annual Session of Students Chemical Engineering Congress

### (SCHEMCON-2021)

### On theme "Globally Advancement in Technology for Environment

### 2021"(GATE-2021)

24-25<sup>th</sup> September 2021



## DEPARTMENT OF CHEMICAL ENGINEERING

Maulana Azad National Institute of Technology (MANIT) Bhopal

&

Indian Institute of Science Education and Research (IISER) Bhopal

Under the aegis of



Chemical Engineering Students Association (ChESA), MANIT Bhopal  
IIChE Students Chapter, MANIT Bhopal & IIChE Headquarter, Kolkata

## PARTICIPATING JOURNAL



## SCHEMCON - 2021

Students' Chemical Engineering Congress (SCHEMCON), is an annual event organized by the Students' Chapter of Indian Institute of Chemical Engineers (IChE) under one of its Regional Centers (IChE Headquarter, Kolkata). It provides a platform for the Chemical Engineering Students to interact, learn and gain exposure to the expanding arena of Chemical Engineering. This SCHEMCON 2021 on "Globally Advancement in Technology for Environment (GATE2021)" is expected to develop a formal platform for scientifically enriching discussions on Chemical Engineering in the country. The symposium aims at exploring recent developments and trends in chemical reaction engineering. It will also provide an excellent opportunity for young researchers and post-graduate students to interact with eminent researchers working in the frontier areas of chemical engineering science and process technology.

Chemical Engineering has a number of applications in our day to day lives. Chemical engineering also has applications in production of electronics, clothing, paper and photographic equipment etc. The scope for individuals in the field of chemical engineering is bound to grow in time. This is mainly because of industrial growth as well as the related scarcity of the resources those are required. In overall, it can be said that chemical engineers will be able to make very crucial contributions to the improvement in addition to the maintenance of the quality of our lives. Chemical Engineering techniques are used for the production of usable, high quality products such as fibres, fabrics, paints, medical drugs, biomaterials, gasoline, lubricants etc used in various industries such as textile, food, plastics, automotive, aerospace, petroleum, oil and gas, biomedical, biotechnology and pharmaceuticals, thereby increasing the scope of Chemical Engineering.

## AIM OF CONFERENCE

*"Globally Advancement in Technology for Environment (GATE-2021)"*

The aim of the SCHEMCON2021 is to challenge and inspire the energy and environmental community through the interchange of knowledge and sharing of best practices in a global-scale context and toward advances for a clean and sustainable environment.

## BRIEF CONTENTS

All areas of Chemical Engineering with the theme "Globally Advancement in Technology for Environment (GATE2021)" and not limited to the following topics –

### (a) Post-COVID19

1. Post-COVID19-New normal practices to ChemicalProcess Industries
2. Recent research on COVID19

3. Chemical/Environmental/Pharma/Food Engineers responsible in COVID19 situation  
4. Materials for cheap and accurate detection of COVID19

### (b) Digital Sustainable Engineering

1. Industry 4.0 for Chemical Refinery and Process Industries
2. Application of digital tools like Artificial Intelligence (AI), Machine Learning (ML), Digital Twin (DT) and Cloud Computing etc for chemical industries
3. Digital Engineering development in the areas of solar energy, hydrocarbon, waste water treatment., etc
4. Modelling, Simulation of Chemical process.
5. Case studies/critical assessment, state-of-art in the above areas

### (c) Green/ Sustainable Materials

1. Novel Material/ catalyst development for the processes.
2. Recent development and application of nanoparticles.
3. Best solutions for Industrial/commercial building wastewater treatment

### (d) Alternative Energy and Storage: 2021 to 2025

1. Bioenergy, Hydrogen Energy and LNG.
2. Environmental biotechnology, nanoparticles application in energy and environment.
3. Energy resources: potential, estimation and utilization of renewable resources.
4. Environmental impact assessments in the Indian context.
5. Case studies/critical assessment, state-of-art in the above areas.

## SUBMISSION OF PAPERS

A full paper in specified doc format, not exceeding 6 pages, may be submitted via email to the organizing secretary at [schemcon2021@gmail.com](mailto:schemcon2021@gmail.com). Full paper can also be submitted on-line through the conference website, following this link: Online Abstract Submission. At least one author/co-author must register for presenting paper at the conference.

## PUBLICATION OF PAPERS

Full papers will undergo a peer review process by panel of experts/reviewers from Journal Editor. Few research article depending on their importance, originality, quality, relevance and other editorial considerations, will be considered for publication in the special issue of *SPRINGER/TAYLOR & FRANCIS(SCOPUS)*, subject to the fulfilment of copyright transfer and event registration.

The template for final and camera-ready submission for journal issue will be provided to the authors at a later stage.

**Event:** Invited Lectures, Paper and Poster Presentations, Technical Quiz

**M.P. Chary Award:** The awardee has to be an outstanding young chemical engineer below 35 years of age, doing PhD

or competed PhD in last year who will be required to make a presentation on his research work. The award carries M.P. Chary Medal and a prize money of Rs. 10,000/-

## REGISTRATION DETAILS

Registration link: <https://forms.gle/L2arCUwzxJnoyQjh6>

Participants <sup>#</sup>	IChE Member*	Non-Member
UG Students	500	750
Student/Research Scholars	1000	1500
Scientist /Faculty from Academic Institutions	1500	2000
Industrial /Research institutions/Professional Bodies	2500	3000
Accompanying Person	-	2000
M P Chary award	2500	2500

#Registration fee cover registration kit, souvenir, lunch, dinner and participation certificate.

\*Please send photocopy of IChE membership certificate/identity card to avail membership benefit.

## PAYMENT OPTIONS

Payment can be made through electronic bank/wire transfer. Payment must be received before 31<sup>st</sup> August, 2021 (Final). Banking details for electronic transaction are as follows.

Bank Account Name – SCHEMCONIChE2021

Type of Account -- SAVINGS

Bank Name -- STATE BANK OF INDIA

Branch-- MANIT, BHOPAL

Bank Account Number -- 39769285483

IFSC Code: SBIN001608

SWIFT Code: SBININBB268

Address of bank -- STATE BANK OF INDIA, MANIT

CAMPUS, BHOPAL, M.P., India.

## ABOUT THE MANIT

Maulana Azad National Institute of Technology (M.A.N.I.T), Bhopal is one of the pioneering engineering institutes of the country which has contributed many outstanding engineers. It is named after the great scholar, educationist and the first education minister of Government

of India, Maulana AbulKalam Azad. It was established in the year 1960. Currently, the institute is conducting 09 UG, 30 PG programs and Ph.D. Programmes in all the disciplines of engineering and applied sciences and also conducting M.B.A programme with the help of about 200 competent faculty members. Special attention is given to interdisciplinary application oriented research with an aim of bridging the gap between academicians and industry professionals. Presently the institute is celebrating its Diamond Jubilee Year.

## ABOUT THE IISER

IISER Bhopal was established by the Govt. of India on February 20, 2008 and the first Academic Session of IISER Bhopal began on August 16, 2008 from the Transit campus. The Institute is currently governed by the NITSER (Amendment) Act, 2017 and the Statutes of IISERs. Though, the Institute was youngest of the first five IISERs established, in a very short span of time, in the first decade itself, received several distinctions, duly carving out its own position in the national and international arena.

The department was established in the year 2015 to encourage the interdisciplinary research among science and engineering disciplines. The programmes offered by this department are intended to encourage scientists to work towards engineering solutions and to have engineers work on fundamental problems in basic science disciplines, thus encouraging collaboration and erasing the boundaries between basic sciences and traditional engineering. Presently, the department offers BS-MS and Ph.D. programmes along with 'minor' to the BS-MS students majoring in natural sciences. This prospect offers students a unique opportunity to utilize (and build on) their foundation in the sciences for engineering applications.

## ABOUT THE BHOPAL

Maulana Azad National Institute of Technology is located in the heart of city of Lakes - Bhopal, capital of Madhya Pradesh.

Cabs/Autos/Public transports are easily available from Railway Station and Airport.

**Air:** Bhopal is well connected with daily flights from Delhi, Mumbai, Gwalior and Indore. MANIT is 17 Km and IISER is 5 Km from the airport.

**Rail:** Bhopal is best connected by train on the central and southern railways. It is well connected with train s from Mumbai, Bangalore to Delhi, Trivandrum etc. The Habibganj railway station is 5 kms & Bhopal railway station is 9 kms away from MANIT.

It is well connected by road as well.