

Five Days National Workshop
on
**“Carbon Neutrality for Sustainable Development:
Challenges and Advances”**
(March 13th-17th, 2023)

Sponsored by



सत्यमेव जयते



Science & Engineering Research Board (SERB)
Department of Science & Technology (DST)
Government of India

Organized by



IPS Academy
Institute of Engineering & Science, Indore
(A UGC Autonomous Institute, affiliated to RGPV Bhopal M.P.)
Chemical Engineering Department
Indore-452012 (M.P) India

Science and Engineering Research Board (SERB), India



सत्यमेव जयते



Science & Engineering Research Board (SERB)
Department of Science & Technology (DST)
Government of India

The Science and Engineering Research Board (SERB) is a statutory body established through an Act of Parliament. Supporting basic research in emerging areas of Science & Engineering are the primary and distinctive mandate of the Board. The Board structure, with both financial and administrative powers vested in the Board, would enable quicker decisions on research issues, greatly improving thereby our responsiveness to the genuine needs of the research, scientists and the science & technology system.

IPS Academy, Institute of Engineering & Science, Indore



IPS Academy, Institute of Engineering & Science, Indore is one of the leading self-financing NAAC accredited institutions devoted to imparting quality engineering education with the sole motto of “Knowledge, Skill & Values”. Institute established after securing approval of AICTE, New Delhi and Govt. of MP from academic session 1999-2000. Institute of Engineering & Science is a UGC autonomous institute affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal. Institute has five-star rating in IIC in CRO zone and also, ranked 38th among the top 170 engineering college in India as per Times of India survey. It offers UG and PG programs in Chemical, Civil, Mechanical, Electrical & Electronics, Electronics & Communication, Fire Technology & Safety Engineering, Agriculture Engineering, Computer Science & Engineering, Computer Science and Information Technology, CSE (Data Science), CSE (Internet of things), CSE (Artificial Intelligence & Machine Learning), CSE (Internet of things and Cyber Security including Block Chain Technology). Furthermore, UG programs have been accredited by National Board of Accreditation, New Delhi. Indore is a commercial capital of M.P. Ministry of Housing and Urban Development has been affirmed cleanest city of India under the aegis of Swachh Bharat Survekshan since last six year consecutively. Indore has been selected as one of the 100 Indian cities to be developed as a smart city under the Smart Cities Mission.

About Chemical Engineering Department

Department of Chemical Engineering was established in the year 2004 with under graduate course to provide quality education to the students & expanded with post-graduation course with specialization in Computer Aided Process Design in 2011. Department has established IChE student chapter in 2009 and professional activities like Engrosser-Technical paper writing competition, INNOVITA -Techfest, expert lecture, industrial visit and tour, etc. are organized every year under students' chapter. The Department has hosted number of quality improvement programs, Seminars / Conferences/ Workshops sponsored by various funding agencies like SERB-DST, MPCOST, AICTE, etc. Students of department are placed in many prestigious organizations like BARC, IGCAR, IPR, IOCL, ONGC, BORL, NFL, BPCL, LUPIN, IPCA, Vedanta, Grasim, Sun Pharmaceutical, Alembic, Reliance, etc.

Vision of the Department

To achieve national recognition through quality education, applied research and professional service of our students.

The department aims to develop knowledge sharing center of excellence in quality teaching and to serve as a valuable resource for industry and society.

Mission of the Department

To provide quality engineering education and environment to the students to become value driven professionals, capable of undertaking lifelong learning and provide service to chemicals and associated industries.

To develop infrastructure that promotes research and entrepreneurial culture.

Course Content

- Carbon emission treatment, measurement, and analysis technologies in energy systems.
- To understand planning and management of distributed renewable generation.
- Emerging technologies for decarbonized energy system, new EVs, smart buildings, etc.
- Status and challenges of application of hydrogen, its production, and storage in the context of carbon neutrality.

- CO₂ capture and its storage
- Understanding of policies for decarbonization of India.
- Assessments and technologies for achieving carbon neutrality
- Hand on Session: Installation procedures & troubleshooting of Solar panel System
- Industry visit to VELUXSUN Private Ltd.

Learning Objectives

- Changes in energy structure caused by decarbonization
- strategies for energy security in the context of carbon neutrality
- Build a clean, low-carbon, efficient, and intelligent new energy supply system
- Energy supervision and its impact on global climate change
- Modernization to fulfill energy need instead of traditional way

Eligibility

- ❖ The workshop is open to Industry persons and Faculty members /Research Scholars/Post Graduate students from any Indian university/ Institute.
- ❖ All the participants are requested to register online by visiting <https://ies.ipsacademy.org> on or before March 10th, 2023 or by browsing the link given in the registration details below.
- ❖ Registration for all the participants is mandatory. For further queries, please mail us at: chhayarekhate@ipsacademy.org

Registration link

<https://forms.gle/mK18EkwvVH3Hfpi36>

Registration Process

Participants will fill up the online application form given in the registration link above with all required details and upload the registration form duly signed by the institute authority (refer last page) on or before the last date of submission. The last date of submission is March 10th, 2023.

Program Schedule

1stDay: 13thMarch 2023, Monday

Time	Session	Particular	Expert
09:30-10:30		Registration	
10:30-11:00		Inauguration	
11:00-12:30	1	Towards Circularity: Few Case Studies	Dr. Sachin Mandavgane VNIT, Nagpur
12:30-13:30		Lunch Break	
13:30-15:00	2	Green Technologies and Processes for achieving carbon neutrality	Dr. S. Suresh MANIT, Bhopal
15:00-15:15		High Tea	
15:15-16:30	3	CO ₂ capture and storage	Dr. Abhinesh K. Prajapati IPS Academy, IES, Indore

2ndDay: 14thMarch 2023, Tuesday

10:15-11:30	4	Towards carbon neutral electricity grids	Dr. Trapti Jain IIT Indore
11:45-13:15	5	Emerging Scenario of Hydrogen Fuel and Carbon Capture Storage Utilization for sustainable Development	Prof. B. R. Natarajan Banastali Vidyapeeth
13:15- 14:00		Lunch Break	
14:30-16:00	6	Carbon Emission, Treatment, Measurement and Analysis Technologies in the Energy System	Mr. Hemant Baser Expert in Energy, Environment

3rd Day: 15thMarch 2023, Wednesday

10:30-12:00	7	Carbon neutrality policy in India	Dr. Parmesh Choudhari NIT Raipur
12:30-13:30		Lunch Break	
13:30-15:00	8	Mitigation of CO ₂ emission through its fixation and conversion into useful products	Dr. Dharendra Rai IIT Indore
15:00-15:15		High Tea	
15:15-16:30	9	CO ₂ capture with ionic liquids	Dr. Kanti K. Athankar IPS Academy, IES, Indore

4th Day: 16thMarch 2023, Thursday

10:15-11:30	10	Energy audit: A sustainable tool for carbon neutrality	Er. Rajesh Singadia Empirical Exergy Pvt.Ltd, Indore
11:45-13:15	11	Hydrogen production, and storage in the context of carbon neutrality	Mrs. Chhaya P. Petle IPS Academy, IES, Indore
13:15-14:00		Lunch Break	
14:00-17:00		Industrial visit	

5th Day: 17thMarch 2023, Friday

10:15-11:30	12	Hybrid Engineering Absorbant for Carbon Capture	Dr. Rohit Khedekar P P Savani University, Surat
11:45-13:15	13	Net zero by 2070	Dr. Rajesh K. Kaushal IPS Academy, IES, Indore
13:15- 14:00		Lunch Break	
14:00-15:30	14	Assessments and technologies for achieving carbon neutrality	Dr. P. G. Jadhav SGGSIET, Nanded
15:30-16:00		Valedictory Function & Certificate Distribution	

Eminent Speakers



Dr. Sachin Mandavgane
VNIT Nagpur



Dr. S. Suresh
MANIT, Bhopal



Dr. Trapti Jain
IIT Indore



Dr. Abhinesh K. Prajapati
IPS Academy, IES



Dr. Kanti K. Athankar
IPS Academy, IES



Dr. Parmesh Choudhari
NIT, Raipur



Dr. Dharendra Rai
IIT Indore



Dr. Rohit Khedekar
P P Savani University Surat



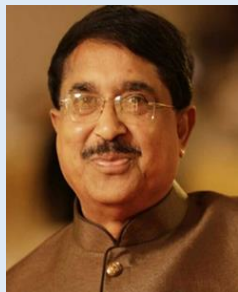
Dr. P.G. Jadhav
SGGSIET, Nanded



Director and Energy Auditor
Empirical Exergy Private Ltd, Indore

IPS Academy
Institute of Engineering & Science, Indore (M.P)
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Mrs. Chhaya Prafulla Petle

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Dr. Archana Keerti Chowdhary
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Co-Convenor



Mr. Yadunandan Deshmukh



Mr. Nitesh Parmar

Advisor



Dr. A. G. Kothari



Dr. Rajesh Kumar Kaushal
Head, Chemical Engineering

Organizing Committee

Dr. Abhinesh Kumar Prajapati

Dr. Deepak Sharma

Dr. Kanti Kumar Athankar

Dr. Shamal Sen

Mr. Vikas Vishwakarma

Mr. Jitendra Patidar

Mr. Vivek Singh

Dr. Savita Dubey

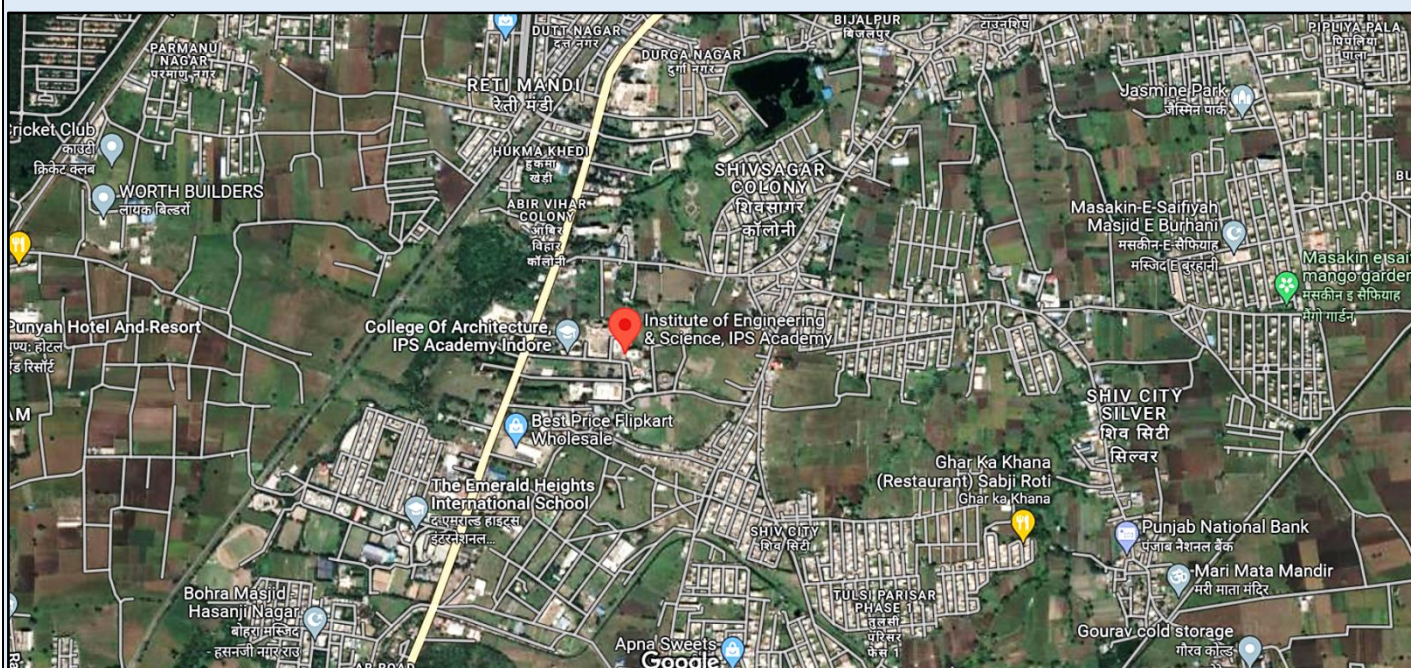
Dr. Smita Karmankar

Dr. Rajnana Ahirwar

Dr. Alka Sharma

Dr. Swati Mehra

Location



Address for Correspondence

IPS Academy

Institute of Engineering & Science, Indore (M.P)

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Chemical Engineering Department

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Hotels Near IPS Academy

Hotel Bee Town (Distance 1.1 km from campus)

Address: AB Road, Near IPS College Rajendra Nagar
Hukma Khedi, Indore, Madhya Pradesh 452014

Hotel Malwa Inn (Distance 2.9 km from campus)

4-5 Adarsh Nagar, AB Rd, Near IPS College, Rajendra Nagar
Indore, Madhya Pradesh 452012

Punyah Hotel & Resort (Distance 4.5 km from campus)

MR44+6FP, CAT Road opposite Treasure Fantasy
Rau, Indore, Madhya Pradesh 453331



National Workshop
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“Carbon Neutrality for Sustainable Development: Challenges
and Advances”
March 13th-17th, 2023

Registration Form

Name:.....

Designation:.....

Department:.....

Organization/Institute:.....

Address:.....

.....

Highest Qualification:.....

Specialization:.....

Experience in Year: Teaching....., Industry....., Total.....

Phone:.....

Email:.....

Signature & Seal,
Head of the Department

Signature of Participants

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