



# SCOPE



**SPRINT Workshop on  
MITIGATING ENVIRONMENTAL IMPACTS OF POST  
COMBUSTION CARBON CAPTURE PLANTS  
(Stakeholder, Policy, Research and Industry NeTwork -SPRINT)**

**Organised by:**

**Prof. N. C. Gupta**

**Prof. Rita Singh**

**Prof Anubha Kaushik**

**University School of Environment Management  
Friday, 28<sup>th</sup> April, 2023, GGS IP University, New Delhi**

SCOPE (Sustainable Operation of post-combustion Capture plants) contributes to accelerating the decarbonization of industry by holistically addressing key knowledge gaps and emission reductions from amine-based carbon capture utilization and storage (CCUS) along with information exchange that is critical in mitigating the environmental impacts of emissions and addressing the climate change. Global warming is a well-known, worldwide concern, caused by increasing concentrations of CO<sub>2</sub> and other greenhouse gases in the earth's atmosphere due to human activities. India is also making a decisive march towards a sustainable energy future. India's pledge at COP26 towards a net-zero by 2070 further accelerates this momentum. CCUS has an important and critical role to play in it especially for India to accomplish net zero by 2070.

The SPRINT event hosted by the GGS Indraprastha University (GGSIPU) will provide a valuable opportunity for key stakeholders to share knowledge between universities, technology institutes, research institutes, industry operators, including regulators and other stakeholders involved in permitting process and development of environmental quality standards. Further the SCOPE is to gain an understanding and knowledge of the environmental impact mitigation of amine-based carbon capture and other toxic compounds on the ecosystem. Integrating science, policy and industry knowledge will help in determining various mitigating strategies to reduce the environmental impacts of emissions and benefits and public perception towards post-combustion carbon technology.



## SPRINT WORKSHOP ON

# MITIGATING ENVIRONMENTAL IMPACTS OF POST COMBUSTION CARBON CAPTURE PLANTS

SRRINT Meeting, USEM, GGSIPU, New Delhi, India

Organised by:

**Prof. N. C. Gupta**

**Prof. Rita Singh**

**Prof Anubha Kaushik**

**Date : Friday, 28<sup>th</sup> April 2023**

**Time : 1000 hrs - 1730 hrs (IST)**

**Venue : Conference Room Administrative Building  
GGSIP University, Dwarka, Delhi**

## PROGRAM SCHEDULE

Time	Title
0900-1000	Registration
<b>INAUGURAL SESSION</b>	
1000-1010	Lighting of lamp, Inaugural Ceremony
1010-1020	Welcome and Overview of Programme by Prof. N. C. Gupta
1020-1030	Inaugural Address by Hon'ble Vice Chancellor- Chief Guest
1030-1040	Address by Dr. A. K. Patra, Department of Mining Engg., IIT Kharagpur
1040-1050	Address by Distinguished Guest Dr. Neelima Alam (Scientist F, DST) "Carbon Capture Utilization and Storage (CCUS) - DST Intervention"
1050-1110	Mr. Sujay Karmakar, General Manager (Green Chemicals) NTPC Vindhyachal): "NTPC initiatives in Carbon Capture & Utilization -10 TPD CO <sub>2</sub> to Methanol R&D Project" (Online Mode)
1110-1120	Keynote Address by Guest of Honour Dr. B. Sengupta, Former Member Secretary, CPCB, MoEFCC, GOI.
1120-1130	Vote of Thanks by Prof. Rita Singh (Dean USEM)
<b>1130 - Tea Break</b>	
<b>Session 1: CARBON CAPTURE UTILIZATION AND STORAGE FOR INDIA'S THERMAL POWER AND STEEL SECTOR</b>	
1200-1225	Plenary Lecture Dr. B. Sengupta, Former Member Secretary, CPCB, MoEFCC, GOI., "Status of Decarbonizing in Power Plants & Large Industry in India to Reduce GHG Emissions & To Achieve Net Zero Emission by 2070"
1225-1245	Prof. N. C. Gupta, Professor USEM: Recent Advances in Carbon Capture Utilization and Storage (CCUS) in India: Climate Change and Carbon Sequestration Perspective
1245-1305	Prof. Suresh Jain, Air Pollution, Health and Transportation Research, IIT Delhi -TBD
1305-1325	Mr. Parth Kumar, Deputy Programme Manager, Industrial Pollution, Centre of Science and Environment (CSE): Role of CCUS in decarbonizing Iron & steel sector in India.

1325-1330	Q&A
<b>1330 To 1430 PM - Lunch Break</b>	
<b>Session 2: MITIGATING ENVIRONMENTAL IMPACTS OF AMINE-BASED CARBON CAPTURE</b>	
1430-1455	Plenary Lecture Prof. C. K. Varshney, Emeritus Professor, School of Environmental Sciences, JNU, New Delhi - “Environmental, Health and Social Impacts of CO2 Capture Technology”
1455-1515	Mr. Gaurav Verma, Deputy General Manager-Business Development & Branch Head, M. N. Dastur & Company (P) Ltd.: “Decarbonizing the Industry through CCUS - Initiatives”.
1515-1535	Dr. Raman Sharma, Principal Scientist, NEERI: Chemical looping Combustion- An Alternate to Amine Based Post Combustion Carbon Capture.
1535-1555	Presentation by Dr. A. K. Patra IIT Kharagpur “Progress, Research & Development activities under SCOPE at IIT Kharagpur.
1555-1645	Presentation & Discussion by International SCOPE Partners.
<b>SESSION 3: PANEL DISCUSSION ON ENVIRONMENTAL BENEFITS, RISKS AND PUBLIC PERCEPTION AND GOVERNMENT EFFORTS TO DEVELOP REGULATORY FRAMEWORK FOR CCUS WITHIN INDIA</b>	
1645-1730	<b>Prof. C. K. Varshney, Dr. B. Sengupta, Prof. C. P. Kaushik, Prof. N. C. Gupta, Prof. Rita Singh, Prof. Anubha Kaushik, Prof. A.K. Patra, Mr. Parth Kumar, Mr. Gaurav Verma, Dr. Somvir Bajar &amp; Online International SCOPE Partners.</b>
<b>1730 - End of Session with Tea</b>	