

# Carbon Capture, Storage and Reuse in India

October 11-12, 2018

Room No. 21, Second Floor, Victor Menezes Convention Center (VMCC)

IIT Bombay, Mumbai

## AGENDA

### Day-1

Start	End	Remarks	Title	Speakers
08:30 am	09:15 am		<b>Registration</b>	
09:15 am	09:45 am	Chairman's Welcome	Opening Remarks and Inaugural Ceremony	Vikram Vishal
09:45 am	10:05 am	Public Lectures	Review of CCUS Status in Europe	Jonathan Pearce
10:05 am	10:25 am		UK's international CCUS programme	Peter Warren
10:25 am	10:45 am		CCUS – a key step in India's climate strategy	V. P. Dimri
10:45 am	11:00 am		Summary and discussion of the session	
11:00 am	11:30 am		<b>High Tea</b>	
11:30 am	11:50 am	Public Lectures – Experiences in CCUS implementation	CO <sub>2</sub> emission and mitigation in Iran: case study of oil and gas industries	Reza Azin
11:50 am	12:10 pm		CDRMax – Proven technology for low cost capture	Ramesh Kumar
12:10 pm	12:30 pm	Chairs: V.P. Dimri and Jonathan Pearce	Process intensification of CO <sub>2</sub> capture: Our journey of over 3 decades	D.P. Rao
12:30 pm	12:50 pm		CCUS-CO <sub>2</sub> EOR in India : Challenges & opportunities	O.N. Gyani/ S. Mitra
12:50 pm	1:00 pm		Summary and discussion of the session	
1:00 pm	2:30 pm		<b>Lunch &amp; Poster Presentation</b>	
2:30 pm	2:50 pm	Session-1A (Room 21) CCU Science and Technology Chairs: Pradeep Perera and Ramesh Kumar	CO <sub>2</sub> capture and utilization pathways: techno-feasibility, research need and market potential	Sukanta Dash
2:50 pm	3:10 pm		Carbon management in power sector: NTPC's CCU initiatives	P. D. Hirani
3:10 pm	3:30 pm		An economical strategy to capture CO <sub>2</sub> through fine-tuning of molecular interactions: a computational investigation	Soujanya Y.
2:30 pm	2:50 pm	Session-2A (Room 22) CCS Science and Technology Chairs: O.N. Gyani and Jonathan Pearce	CO <sub>2</sub> enhanced oil recovery: Geological and geophysical perspectives	Nimisha Vedanti
2:50 pm	3:10 pm		Assessing CO <sub>2</sub> storage capacity	John Williams
3:10 pm	3:30 pm		Geomechanical aspects of CO <sub>2</sub> sequestration – discussion and case studies	Sankhajit Saha
3:30 pm	4:00 pm		<b>High Tea</b>	

Start	End	Remarks		Title	Speakers
4:00 pm	4:20 pm	Session-1B (Room 21)	CCU Science and Technology  <b>Chairs:</b> Bhawna Singh and D. P. Rao	Easy on, easy off- carbon capture technology	Ujjwal Pal
4:20 pm	4:50 pm			Development of integrated technologies for conversion of industrial waste CO <sub>2</sub> to MeOH & other value-added chemicals via thermochemical route	Sebastian C. Peter
4:50 pm	5:00 pm			Smart and selective fabric for carbon capture & storage	Vijay Yeul
5:00 pm	5:15 pm	Panel Discussion-1 (Room 21)		Summary of knowledge in carbon capture-utilization	Pradeep Perera Ramesh Kumar Bhawna Singh D. P. Rao
4:00 pm	4:20 pm	Session-2B (Room 22)	CCS Science and Technology  <b>Chairs:</b> Reza Azin and Nimisha Vedanti	Sequestering carbon dioxide through EOR: An Indian perspective	Shib Sankar Ganguli
4:20 pm	4:50 pm			Fluids in engineered and natural porous media : Neutron scattering study	Jitendra Bahadur
4:50 pm	5:00 pm			Existence of pre-Darcy flow in gas flow systems as relevant to CO <sub>2</sub> storage	Reza Azin
5:00 pm	5:15 pm	Panel Discussion-2 (Room 22)		Summary of knowledge in carbon storage	O.N. Gyani Jonathan Pearce Reza Azin Nimisha Vedanti
7:00 pm	9:00 pm	<b>Conference Dinner, Musical Evening and Poster Prize Distribution</b>			

DIAMOND Sponsors:



## Day-2

Start	End	Description	Remarks	Speakers
9:00 am	9: 20am	Opening talk for Second day	Funding opportunities in CCUS in India	Pradeep Perera
9: 20am	9:40 am	Event Sponsors' talk	Carbon capture and utilization for zero pollution industries in India	Aniruddha Sharma
9:40 am	10:00 am		Sustainable business opportunities in India and West Bengal – Utilizing CO <sub>2</sub> emissions from coal-fired power plants for enhancing local coalbed methane production	U P Pani
10:00 am	10:20 am	Public Lectures – Relevance of CCUS	CCS: Is it relevant for India?	Anand B Rao
10:20 am	10:40 am		Global trends on CCUS	Tristan Stanley
10:40 am	11:00 am	<b>High Tea</b>		
11:00 am	11:20 pm	Public Lectures Opportunities for CCUS <b>Chairs:</b> Tristan Stanley and Aniruddha Sharma	Indonesian Center of Excellence of CCS-CCUS	Rachmat Sule
11:20 pm	11:40 pm		Life cycle assessment of carbon capture and storage technologies - system analysis for environment sustainability	Bhawna Singh
11:40 pm	12:00 pm	Deep Dive Panel Discussion I	ADB's experiences in establishment and nurturing of CCUS centers for excellence in Asia	Darshak Mehta
12:00 pm	12:30 pm		Is India CO <sub>2</sub> capture and re-use ready? <b>Moderated by:</b> Pradeep Perera	Peter Warren Anand B. Rao Aniruddha Sharma P. D. Hirani Vivek Pandey Bhawna Singh
12:30 pm	1:00 pm	Deep Dive Panel Discussion II	Is India CO <sub>2</sub> storage and re-use ready? <b>Moderated by:</b> Jonathan Pearce	V P Dimri Tristan Stanley John Williams U P Pani Amit Garg Vilas Tawde
1:00 pm	1:15pm	Conclusion	Summary/ Feedback	Karl Jeffery and Vikram Vishal
<b>Closing Lunch</b>				

SAPPHIRE Sponsors:



<b>List of Speakers</b>	
<b>Amit Garg</b>	IIM Ahmedabad
<b>Anand B. Rao</b>	Centre for Technology Alternatives for Rural Areas, IITB
<b>Aniruddha Sharma</b>	Carbon Clean Solutions Limited
<b>Bhawna Singh</b>	Ministry of Environment, Forests and Climate Change
<b>Darshak Mehta</b>	Asian Development Bank
<b>D. P. Rao</b>	Trilok Corporation (formerly IIT Kanpur)
<b>Jitendra Bahadur</b>	BARC, Mumbai
<b>John Williams</b>	British Geological Survey
<b>Jonathan Pearce</b>	British Geological Survey
<b>Nimisha Vedanti</b>	CSIR-National Geophysical Research Institute
<b>O. N. Gyani</b>	Oil and Natural Gas Corporation
<b>P. D. Hirani</b>	NETRA-NTPC
<b>Peter Warren</b>	Climate Investment Lead, Government of UK
<b>Pradeep Perera</b>	Asian Development Bank
<b>Rachmat Sule</b>	Institut Teknologi Bandung
<b>Ramesh Kumar</b>	Carbon Clean Solutions Ltd
<b>Reza Azin</b>	Persian Gulf University
<b>Sankhajit Saha</b>	Baker Hughes
<b>Sebastian C. Peter</b>	Jawaharlal Nehru Centre for Advanced Scientific Research
<b>Shib Sankar Ganguli</b>	IIT Kanpur
<b>Soujanya Y.</b>	CSIR – Indian Institute of Chemical Technology
<b>Sujit Mitra</b>	Oil and Natural Gas Corporation
<b>Sukanta Dash</b>	Pandit Deendayal Petroleum University, Gujarat
<b>Tristan Stanley</b>	International Energy Agency
<b>U. P. Pani</b>	Jupiter Oxygen Corporation
<b>Ujjwal Pal</b>	CSIR – Indian Institute of Chemical Technology
<b>Vijay Yeul</b>	CSIR-NEERI & Chandrapur Super Thermal Power Station
<b>Vilas Tawde</b>	Essar Oil and Gas Exploration and Production Limited
<b>Vivek Pandey</b>	Power System Operation Corporation Limited, Mumbai
<b>V. P. Dimri</b>	President, 36 <sup>th</sup> International Geological Congress 2020