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## **Industry-Academia-Government Consultative Meeting to address the Challenges of Energy Sector (Conventional & Non-conventional) and Energy Devices**

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**17 October 2022 (Virtual)**

*Jointly Organized by*

Council of Scientific & Industrial Research (CSIR) and Department of Scientific and Industrial Research, Ministry of Science & Technology (Government of India)

*and*

Asian and Pacific Centre for Transfer of Technology (APCTT)  
of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)

### **BACKGROUND**

The energy sector is key to combat the future energy crisis, reduce emissions and mitigate climate change impacts. These challenges can be addressed by scaling up and adoption of green, clean, efficient and innovative technologies in the energy and power sector. Emerging technologies such as artificial intelligence, the Internet of Things, digital twins, robotics and Big Data, offer many innovative applications in the energy sector in terms of improvement of efficiency, reduction of emissions, enhancement of reliability and optimization of costs. Examples include AI-enabled smart meters, 5G-based smart grids, smart solar energy systems, intelligent DC motors, use of biofuels, and using Big Data to locate harmful emissions. These technologies can be key enablers of sustainability and environmental resilience – offering important opportunities to help assess, mitigate and adapt to climate change.

With many emerging technologies already available, particularly in the Asia-Pacific, there are challenges and opportunities for their transfer at industrial scale and adoption in the region. It is therefore important for countries to explore cross-border collaboration between industry, academia and Government to accelerate innovation, scaling up and adoption of emerging energy technologies. The triple helix relationship between Industry-Academia-Government enables the diffusion of ideas, innovations, skills and people with the aim of creating mutual value over time across the region. Enabling policy and strategy options, regulatory mechanisms, and good practices are necessary to facilitate cross-border transfer, adoption and diffusion of emerging technologies for improving efficiency and reducing emissions from the energy sector. Recognizing the needs and priorities of the region, this Industry-Academia-Government Consultative Meeting is being

organized to deliberate on the strategies for addressing the challenges of energy sector (both conventional & nonconventional) and energy devices.

The regional consultation aims to provide a platform for member States to share knowledge on emerging energy technologies, identify opportunities of collaboration, and deliberate on the priorities and actions required through Industry-Academia-Government collaboration to accelerate transfer and adoption of emerging technologies in the energy sector.

## OBJECTIVES

- To understand the needs, and share information about existing technologies and innovations for addressing the challenges of energy sector
- To deliberate and explore opportunities and strategies for transfer of energy related technologies through Industry-Academia-Government collaborative model between member States
- To strengthen regional technology cooperation among member States in energy sector

## PARTICIPANTS

National focal points of APCTT, representatives from Government, academia, industries and other agencies/institutions; and experts from energy associations and relevant stakeholders from participating member States of the Asia-Pacific region

## TENTATIVE AGENDA

(India Time: GMT+5:30)

OPENING SESSION		
10:00–10:15	Welcome address	<b>Dr. Rama Swami Bansal</b> Chief Scientist and Head, International S&T Affairs Directorate (ISTAD), Council of Scientific & Industrial Research (CSIR), Government of India
	Opening remarks	<b>Dr. Preeti Soni</b> Head, Asian and Pacific Centre for Transfer of Technology (APCTT) of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)
	Special remarks	<b>Mr. Surinder Pal Singh</b> Joint Secretary, Department of Scientific and Industrial Research (DSIR), Government of India
	GROUP PHOTO	

10:15 – 12:15 hours: **SESSION I: Emerging energy technologies and devices (both conventional & non-conventional), and Industry-Academia-Government collaboration**

Moderator: **Dr. Indranil Chatteraj**, Director, CSIR-National Metallurgical laboratory (NML), Ministry of Science and Technology, Government of India

*The session will discuss key issues and challenges, needs and availability of energy technologies and devices (both conventional & non-conventional). The deliberations will focus on how the challenges could be addressed through cross-border Industry-Academia-Government collaboration in member States to mitigate the future energy crisis.*

10:15 – 12:15 (7-8 minutes each)	Key issues and challenges of the energy sector	<b>Dr. S. S. V. Ramkumar</b> Director, M/s Indian Oil Corporation Ltd., India
	Emerging energy technologies and devices, energy efficiency including new materials, power electronics	<b>Prof. Pinakeswar Mahanta</b> Director, National Institute of Technology (NIT) Arunachal Pradesh, India
	Industry-Academia-Government collaboration in energy sector (Indo German Experience)	<b>Mr. Tobias Winter</b> , Director, Indo-German Energy Forum (IGEF-SO)
	Needs and availability of energy technologies in conventional and non-conventional sectors	<b>Mr. B M Tripathi</b> Chief General Manager (Geology), M/s ONGC Limited, India
	Industry-Academia-Government collaboration in energy sector (Global experience)	<b>Dr. Ilkka Hannula</b> Senior Analyst, Renewable Energy Division, International Energy Agency (IEA), Paris
	Biofuel as alternate energy source and related technologies	<b>Prof. Rintu Banerjee</b> Head, AgFE, Indian Institute of Technology (IIT)-Kharagpur; Coordinator, RuTAG; Nodal Coordinator for Australia and New Zealand for Scheme for Promotion of Academic and Research Collaboration (SPARC)
	Petroleum and petrochemical products - technology value chain for sustainability	<b>Mr Satyajit Samanta</b> , Manager, Technical M/s HPCL-Mittal Energy Ltd. (HMEL), India
	Energy solutions with a focus on battery technology	<b>Dr. A. S. Prakash</b> Senior Principal Scientist, CSIR-Central Electrochemical Research Institute (CSIR-CECRI), Government of India
	Green hydrogen - alternate energy and grid integration	<b>Dr. Ajit Sapre</b> , Group President R&D Head, M/s Reliance Industries Limited, India

1215– 1250 **SESSION II: Country perspectives on energy technologies and discussion on potential Collaboration**

Moderator: **Dr. Preeti Soni**, Head of APCTT-ESCAP

*In this session, participating country representatives will share their country's interest in specific energy technologies and discuss industry-academia-government collaboration opportunities for technology development, transfer and acquisition.*

12:15-12:50	Country perspectives(3-5 minutes each)	<p><b>Representative (s) of member States</b></p> <p><b>Prof. Ashok Jhunjunwala</b> Institute Professor, IIT Madras &amp; President-IITM Research Park, IITM IC and RTBI at Indian Institute of Technology, Madras, India</p> <p><b>Dr. Saqib Nasir</b> Deputy Technological Adviser Ministry of Science and Technology, Government of Pakistan Pakistan</p> <p><b>Dr. Ronaldo Parreno</b> Senior Science Research Specialist Industrial Technology Development Institute (ITDI), Department of Science and Technology (DOST), Government of Philippines Philippines</p> <p><b>Dr. Pratip Vongbandit</b> Deputy Governor, R&amp;D for Sustainable Development, Thailand Institute of Scientific and Technological Research (TISTR) Thailand</p>
<b>Closing session</b>		
12:50 – 13:00	Closing remarks	<p><b>Dr. Preeti Soni</b> Head of APCTT-ESCAP</p> <p><b>Dr. Ramanuj Banerjee</b> Scientist F, Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, Government of India</p>
	Closing remarks	

Registration Link& QR Code: <https://forms.office.com/r/fRuBCBNUsu>



Microsoft Teams meeting:

[Click here to join the meeting](#)

Meeting ID: 384 416 266 424

Passcode: cdaynW

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