Jointly Organized by

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

and

Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, Government of India

30 November 2021
New Delhi, India
(Virtual)
**PROGRAMME**

Date: 30 November 2021  
Time: 0900 – 1615 hours (India Time: GMT + 5:30)

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<th>Time</th>
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| 09:00-09:50  | Welcome Address | Ms. Preeti Soni  
Head, Asian and Pacific Centre for Transfer of Technology, United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) |
| 09:50-10:05 | Opening Address | Dr. Shekhar C. Mande  
Secretary, Department of Scientific and Industrial Research (DSIR), and Director General, Council of Scientific and Industrial Research (CSIR), Ministry of Science and Technology, Government of India |
| 09:50-11:15 | Special Remarks | Ms. Armida Salsiah Alisjahbana  
Under-Secretary-General and Executive Secretary of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) |
| 10:05-10:20 | Keynote Address | Dr. Rajiv Kumar  
Vice Chairman, NITI Aayog (National Institution for Transforming India), Government of India |
| | Group Photo | |

**PLENARY SESSION I: 4IR Technologies to Achieve Sustainable Development Goals (SDGs) – Opportunities and Challenges**

*This plenary session will deliberate on the overarching role of 4IR technologies to address the challenges of sustainable development. It will also touch upon the issues of digital divide and intellectual property management in wider adoption of such technologies.*

**Chair:** Mr. Sanjeev Sanyal, Principal Economic Advisor, Department of Economic Affairs, Ministry of Finance, Government of India

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| 09:50-10:05  | Role of 4IR Technologies in Achieving the Sustainable Development Goals (SDGs) | Mr. Purushottam Kaushik  
Head, Centre for the Fourth Industrial Revolution (India), World Economic Forum |
| 10:05-10:20 | Policies and Financial Tools for Resilient Economic Recovery to Achieve SDGs in the Fourth Industrial Revolution Era | Mr. Sanjeev Sanyal  
Principal Economic Advisor, Department of Economic Affairs, Ministry of Finance, Government of India |
Executive Director, South Centre, Geneva, Switzerland |
| 10:35-10:50 | Bridging the Digital Divide to Support Adoption of 4IR Technologies | Prof. Subhasis Chaudhuri  
Director, Indian Institute of Technology (IIT) Bombay, Mumbai, India |
<p>| 10:50-11:15 | Discussion | |</p>
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<td>11:15-11:30</td>
<td>COFFEE BREAK</td>
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| 11:30-12:45  | BREAKOUT SESSION I: 4IR Technologies to Combat COVID-19 and Strengthen Healthcare Systems | **Chair**: Dr. Randeep Guleria, Director, All India Institute of Medical Sciences (AIIMS), New Delhi, India  
**Rapporteur**: Prof. P. Uma Maheswari Devi, Director, Internal Quality Assurance Cell (IQAC) and Professor, Department of Applied Microbiology & Biochemistry, Sri Padmavati Mahila Viswa Vidyalayam (Women’s University), Tirupati, India |
| 11:30-11:45  | Future of Healthcare under Fourth Industrial Revolution – Implications for Policy and Strategy Development | **Dr. Randeep Guleria**  
Director, All India Institute of Medical Sciences (AIIMS), New Delhi, India |
| 11:45-12:00  | Disruptive 4IR Applications in Medical/Healthcare Services to Combat COVID-19 in Asia-Pacific | **Prof. Subhas Chandra Mukhopadhyay**  
Director of International Engagement, School of Engineering, Macquarie University, Australia |
| 12:00-12:15  | Digital Transformation and Innovations in Healthcare – Opportunities and Challenges | **Dr. Anurag Agarwal**  
Director, Institute of Genomics and Integrative Biology, Council of Scientific & Industrial Research (CSIR-IGIB), New Delhi, India |
Fellow, Korea Policy Centre for the Fourth Industrial Revolution (KPC4IR), Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea |
| 12:30-12:45  | Discussion                                                                    |                                                                                             |
| 11:30-12:45  | BREAKOUT SESSION II: 4IR Technologies for Climate Change Mitigation and Clean Energy | **Chair**: Mr. Jagjeet Singh Sareen, Assistant Director General, International Solar Alliance (ISA), India  
**Rapporteur**: Dr. Sukhomay Pal, Professor, Mechanical Engineering, IIT Guwahati, India |
| 11:30-11:45  | Accelerating Clean Energy Innovations and Applications Through Investments in Emerging Technologies | **Mr. Jagjeet Singh Sareen**  
Assistant Director General, International Solar Alliance (ISA), India |
| 11:45-12:00  | Enabling Policies and Strategies to Promote 4IR Technologies for Climate Change Mitigation In Asia-Pacific | **Dr. Venkatachalam Anbumozhi**  
Director - Research Strategy and Innovation, Economic Research Institute for ASEAN and East Asia (ERIA), Indonesia |
| 12:00-12:15  | Harnessing 4IR Technologies for Sustainable and Smart Cities                   | **Mr. Kok-Chin Tay**  
Chairman of the Smart Cities Network, Director, Smart Cities Council ASEAN, Singapore |
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| 12:15-12:30| Adoption of 4IR Technologies for Development of Clean Energy and Low Carbon Growth | Prof. Pinakeswar Mahanta  
Director, National Institute of Technology (NIT), Arunachal Pradesh and Professor, Mechanical Engineering, IIT, Guwahati, India |
| 12:30-12:45| Discussion                                                                    |                                                                                      |
| 11:30-12:45| BREAKOUT SESSION III: Harnessing 4IR Technology for Sustainable Production and Resilient Economic Recovery from the COVID-19 Pandemic | **Chair:** Prof. (Dr.) Sachin Chaturvedi  
**Rapporteur:** Dr. Indranil Biswas  
**Organizer:** Research and Information System for Developing Countries (RIS), New Delhi, India |
| 11:30-11:55| Policies and Financial Tools to Support 4IR Technologies                     | Prof. (Dr.) Sachin Chaturvedi  
Director General, Research and Information System for Developing Countries (RIS), New Delhi, India |
| 11:55-12:20| 4IR-Driven Manufacturing for Accelerating Resilient Recovery in Post COVID-19 Era | Dr. Martyn Davies  
Managing Director for Emerging Markets and Africa, Dean, Deloitte Alchemy School of Management, Deloitte, South Africa |
| 12:20-12:45| Discussion                                                                    |                                                                                      |
| 12:45-13:45| LUNCH BREAK                                                                  |                                                                                      |
| 13:45-14:00| Summary of breakout sessions I, II, III                                     | Chairs/Rapporteurs of breakout sessions I, II, III                                    |
| 14:00-15:30| Panel discussion                                                             | **Representatives of Member States**  
(5-7 minutes each)  
People’s Republic of China:  
**Ms. Xuemei Yang**  
Director, Department of International Cooperation, Ministry of Science and Technology (MOST), China |

**PLENARY SESSION II: Panel Discussion on Proposals for Regional Cooperation on 4IR Technologies to Promote Sustainable Development**

This session will deliberate on the strategies for regional cooperation to promote development and utilization of 4IR technologies for sustainable development. The panelists, among the representatives from the member States of ESCAP, will share views and experiences on the policy, strategies and good practices that have proved successful towards strengthened regional cooperation for innovation, transfer and commercialization of 4IR technologies. The discussion will help develop policy recommendations for regional cooperation to harness 4IR technologies.

**Chair:** Mr. Rajan Sudesh Ratna  
Economic Affairs Officer, Subregional Office for South and South-West Asia, ESCAP
### India:

**Prof. Abhay Karandikar**  
Director, Indian Institute of Technology (IIT), Kanpur, India

### India:

**Prof. Jayant M Modak**  
Professor, Chemical Engineering and Former Deputy Director, Indian Institute of Science (IISc), Bangalore, India

### Islamic Republic of Iran

**Dr. Alireza Allahyari**  
General Director, Iranian Research Organization for Science and Technology (IROST), Ministry of Science, Research & Technology, Islamic Republic of Iran

### Sri Lanka

**Mr. Ajith Dhammika Jayasuriya**  
Deputy Director General (R&D), National Engineering Research & Development Centre (NERDC), Government of Sri Lanka

### Thailand

**Dr. Kamolrat Intaratat**  
Director of Expertise Research Centre, Associate Professor, School of communication Arts, Sukhothai Thammathirat Open University, Thailand

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<td>15:30-16:00</td>
<td>Open discussion</td>
<td>Ms. Preeti Soni Head, APCTT, ESCAP</td>
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<td>16:00-16:15</td>
<td>Remarks</td>
<td>Mr. Surinder Pal Singh Joint Secretary and National Focal Point for APCTT, Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, Government of India</td>
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<td>Vote of Thanks</td>
<td>Dr. Ramanuj Banerjee Scientist F and National Focal Point for APCTT, Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, Government of India</td>
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**Master of Ceremonies: Dr. Vanita Sood**, Deputy Secretary & Chief Welfare Officer (CWO), Department of Personnel & Training, Government of India