



**Directorate of Outcome**  
**Outcome Report (Event/Activity Organized @ AUH)**

**1. General Information**

**Date:** 4<sup>th</sup> April 2022 (10:00 am to 2:00 pm)  
**Event Type:** Webinar  
**Event Title:** Green Technologies for mitigation of Global Warming & Climate Change  
**Event Theme:** Innovation  
**Venue:** Zoom (Online)  
**Web/Video Link of the Event:**  
**Organized by (School):** Department of Civil Engineering, Amity School of Engineering Department (ASET)

**In collaboration with:** Amity Academic Staff College  
**Event Level:** National

**Total no of participants: Registered: and Attended:**  
**Student Participation\*: No. of Students from AUH (Course wise):**  
**Faculty Participation\*: No. of Faculty Members from AUH (Dept. wise):**  
**Participation from outside AUH\*: No. of Students & Faculty Members:**  
*(Enclosed attendance sheets in given format)*

**Event Organiser with designation:** Dr HRP Yadav, Professor and Head, Civil Dept.  
**Event Coordinator:** Ms Sakshi Gupta, Assistant Professor, Department of Civil Engineering, ASET, Amity University Haryana  
 Dr Tanvi Gupta, Assistant Professor, Department of Civil Engineering, ASET, Amity University Haryana

**Details of Expert/Speaker/Resource Person/Judge:**

S N	Country Name	Expert Name	Organization Name	Designation	Specialization	Contact No.	E-mail Id	Address	Major Areas where Amity can Collaborate with expert	CV of Expert (Yes/No)
1	India	Mr. R.V. Shahi	Energy Infratech Pvt..Ltd.	Chairman	Mechanical Engineering	98116 90180	rvshahi@energyinfratech.com	Chairman, Energy Infratech Pvt..Ltd.	Research	Yes
2	India	Dr. Ajay Mathur	International Solar Alliance	Director General	Chemical Engineering	98118 73812	amathur@internationalalliance.org	Director General, International Solar Alliance	Research	Yes

3	India	Dr. Arun Kumar Tripathi	Ministry of New & Renewable Energy, Government of India	Adviser,	Agriculture Engineering	98108 80378	aktripathi@nic.in	Ministry of New & Renewable Energy, Government of India	Research	Yes
4	India	Dr. Ashok Kumar	Bureau of Energy Efficiency	Dy. Director General	Mechanical Engineering	97173 56640	kumara@beindia.gov.in	Dy. Director General, Bureau of Energy Efficiency	Research	Yes
5	India	Shri S. N. Tripathi	Project Management, NTPC	Executive Director	Mechanical Engineering	96509 90523	sntripathi@ntpc.co.in	Executive Director (Project Management) NTPC	Research	Yes
6	India	Dr. Jai Prakash Singh	NISE	Director	Electrical Engineering	72069 35077	jaiprakash.singh@nise.res.in	Director (Tech.), NISE	Research	Yes
7	India	Ms. Debjani Bhatia	Technical Services & Business Head, IREDA	Addnl. General Manager	Masters in Renewable Engineering	98714 64382	debjani@ireda.in	Addnl. General Manager (Technical Services) & Business Head, IREDA	Research	Yes

**Criteria of Inviting Resource Person/Judge/Speaker/Judge (Write a paragraph):**

**Mr. R V Shahi, FIE, Chairman, Energy Infratech Private Ltd. Former Secretary (Power), Ministry of Power, Government of India.** Shri RV Shahi, is currently Chairman of Energy Infratech Pvt Ltd., New Delhi. He is also the former secretary to government of india , ministry of power. He had headed the Bombay Suburban Electric Supply (BSES Ltd) as chairman and managing director. He has made significant reforms in power sector as secretary, Power, Government of India. Mr Shahi is a renowned mechanical engineer. He is considered as a renewable energy expert and visionary. Shri R.V. Shahi was bestowed with the prominent **“Best Power Man of the Millennium Year 2000”** award by National Foundation of Indian Engineers. He has authored some coveted publications **“Towards Powering India: Policy Initiatives and Implementation Strategy”** & **“Indian Power Sector:**

**Challenge and Response”.** He is fellow of Institution of Engineers (India) and fellow of Indian National Academy of Engineering.

**Dr. Ajay Mathur, Director General, International Solar Alliance Secretariat**

He leads the operations and carries out the functions of the ISA Secretariat and is responsible to the ISA Assembly. The Director-General has a term of four years and is eligible for re-election. H.E. Dr. Ajay Mathur holds the office of the Director-General presently. Dr. Mathur received a bachelor's degree in Chemical Engineering from the (then) University of Roorkee, and master's and PhD degrees from the University of Illinois. He has also received the Distinguished Alumnus Awards from both his alma maters. He was appointed a Chevalier de l'Ordre national du Merite by the President of France in recognition of his outstanding commitment to preserving the environment and coping with energy-related challenges.

**Mr Abhishek Mishra**, Co-founder GoMylz Mobility who would be delivering his talk on Green Mobility. Mr Abhishek is a Management graduate and focusses on HR in the areas of technology and engineering. Managed large scale complex organisations crossing country boundaries.

**Dr. Arun K Tripathi** is currently Adviser in the Ministry of New and Renewable Energy (MNRE), Government of India. Earlier he was Director General, National Institute of Solar energy (NISE), an autonomous Institute of MNRE to promote & propagate solar energy. Dr. Tripathi has contributed a lot in the areas of Solar Rooftop, Solar Photovoltaic cell. He was editor of Akshay Urja, a magazine published by MNRE to promote and make awareness of renewable energy sources. Dr. Tripathi did his Bachelor of Engineers in Agriculture Engineering from IIT Kharagpur. He did his M.Tech and Ph.D from IIT Delhi in Bio-mass Energy.

**Dr. Jai Prakash Singh** who is a researcher in the field of Solar Photovoltaic (PV) energy conversion. He is the Director (Technical) at NISE and heading Solar Photovoltaic activities in the institute. He obtained his PhD in Electrical and Computer Engineering department/and SERIS from NUS and M.Tech from IIT Bombay in Energy Science & Engineering, and the B.Tech. degree in Electrical Engineering from Jamia Millia Islamia University, New Delhi.

Dr. Jai Prakash has more than 14 years of experience in Solar Photovoltaic R&D (c-Si Solar cells and modules) across various international research labs and PV industry. Before joining NISE, he was Head of Silicon PV Module Technology group at Solar Energy Research Institute of Singapore (SERIS), National University of Singapore where he served for more than 10 years in various positions. He has published more than 30 peer reviewed research papers in high impact journals and conferences, co-authored one book chapter, and filed/granted few patents. His research work focuses on new and advance PV module concepts, characterization & loss analysis for c-Si cell and modules, reliability study of c-Si PV modules, Performance study of PV power plants and asset management, PV Module for urban

applications (e.g., Building-Integrated PV), smart module concepts, PV recycling and circular economy.

**Shri S N Tripathi.** Shri Tripathi is currently Executive Director (Project Management), NTPC. He has 34-year experience in Project construction, O&M of thermal power plant of NTPC. He has handled many projects of NTPC including energy efficiency. He is a mechanical Engineer from B.I.T. Sindri.

**Dr. Ashok Kumar** is presently working as Dy. Director General at Bureau of Energy Efficiency (BEE), Ministry of Power, Government of India. He presently leads the implementation of National Mission on Enhanced Energy Efficiency (NMEEE), a component of National Action Plan on Climate Change (NAPCC) of India, and other responsibilities. He worked as Director at BEE since 2011 and was primarily involved in the coordination of the Perform, Achieve and Trade (PAT), the flagship program under the mission which involves development of energy consumption norms and standards for energy-intensive industrial sectors. Before joining the Bureau of Energy Efficiency, he worked in design and development of high field superconducting magnets and local environmental control devices as a Scientist at National Physical Laboratory (NPL), New Delhi, India. He holds two patents of local environmental control devices.

He has also worked with Energy Coordinating Agency (ECA), Philadelphia, USA, an organization that helps conserve energy and promote sustainable and socially equitable energy future in the Philadelphia region.

Dr. Ashok Kumar holds a PhD degree from Center for Energy and Environmental Policy, University of Delaware, USA, in Energy and Environmental Policy, specializing in Energy Economics, Energy and Sustainability, and Sustainable Development. He carries degrees in Masters of Technology in Energy Studies and Bachelor of Technology in Mechanical Engineering both from Indian Institute of Technology (IIT) Delhi.

**Ms. Debjani Bhatia** is an engineer with post graduate qualification from MNNIT, Allahabad. Earlier she was at GEC Alstom Ltd., she joined the IREDA Ltd in 1994. In the last 28 years, her experience at IREDA ranges from conceptualization to loan administration and implementation of various Renewable Energy (RE) and Energy Efficiency (EE) projects. She has structured several bankable projects through debt financing using different innovative financing tools. She is currently associated with Business Development, Policy, and Strategy formulation for IREDA. Further, she is also heading the Consultancy wing and is involved in implementation of various Govt. of India schemes such as Production linked Incentive (PLI) scheme for production of high-efficiency solar module and Govt. Producer Scheme (CPSU) for Solar Power.

## 2. Outcome of the Event with Time Lines (Proposed/Achieved)

Envisaged Outcome	Tangible/ Intangible	Achieved/ Proposed	Target date & responsibilities (if proposed )	Details of outcome
<b>1. Outcome related to Academia Connect</b>				
a) Collaborations for Research Papers/Conference Papers/ Book Chapter etc.		-	-	
b) Collaborations & MOU for Research Guidance [PhD, PG & UG (summer training, Dissertation)] & Projects/Use of Instruments etc.		-	-	-
c) Collaboration for Funded Projects		-	-	-
<b>2. Outcome related to Industry Connect</b>				
a) Placement		-	-	-
b) Collaborations for Research Papers		-	-	-
c) Collaborations & MOU for Research Guidance [PhD, PG & UG (summer training, Dissertation)] & Projects/Use of Instruments		-	--	-
d) Collaboration for Funded Projects		-	-	-
<b>3. Outcome related to Society Outreach</b>				
a) Benefit to society in terms of Health & Hygiene	NA	NA	NA	NA
b)		-	-	-
<b>4. Outcome related to Students Learning &amp; Grooming</b>				
<ul style="list-style-type: none"> <li>To help the students and faculties understand the emerging trends of various aspects in Civil Engineering and their importance including environmental aspects of the construction industry.</li> <li>To create awareness and understanding about the green technologies, global warming and climate change amongst the B.Tech, M.Tech. Ph.D students, Faculty members, researchers and others.</li> <li>To provide knowledge about environmental issues due to emissions of Green House Gases and the strategies to reduce them.</li> </ul>				
<b>5. Any other</b>				
<u>NIL</u>				

## 3. Event Report along with glimpses of the event (Photographs)

**General Introduction of the Event:** Due to increasing trend of average temperature of the air near Earth's surface, the threat of global warming appears to be true. Research and Scientific studies have revealed that the global atmosphere concentrations of Carbon Dioxide, (CO<sub>2</sub>), Methane (CH<sub>4</sub>) and Nitrous Oxide (N<sub>2</sub>O) have increased due to anthropogenic activities. These gases are called Green House Gases (GHGs) responsible for increasing global average temperature and causes adverse effects on ecosystem. Global warming causes threat of climate change; such as degradation of natural ecosystem, rise of sea level, melting of glacier; etc. and finally impacting the country's food security, water security, energy security; etc.

To address the issues, several protocols, bodies have been framed and established. They include; Inter-governmental Panel on Climate Change (IPCC), UNFCCC, Government of India's National Action Plan on Climate Change (NAPCC); etc. To mitigate such consequences, Government of India has promoted renewable energy sector. Jawahar Lal Nehru National Solar Mission has been formed and Renewable Energy Procurement Obligation (RPO) has been considered as one of the

key drivers to promote solar power as one of the sustainable green technologies. Emissions of green house gases due to transportation sector can be reduced by use of renewable transport fuels in place of fossil fuels. R & D work on development of alternative transport fuels with environmental and economic viability are being carried out at various research organizations including premier academic engineering institutes. However, there is a need of ample awareness of the climate change & global warming consequences.

Considering the importance of the issues, the Civil Engineering Department of Amity School of Engineering of Technology (ASET), Amity University Haryana is organizing One-day Webinar on “Green Technologies for mitigation of Global Warming and Climate Change. The programme shall comprise Inaugural session followed by Technical Session. The programme of the webinar is attached herewith.

**3.1 Inspiration & Objectives of the Event:** The main objective of organization of this webinar is to create awareness amongst students, faculties, stakeholders about the cause of global warming and climate change and how to mitigate such adverse consequences.

**3.2 Brief about the address/talk of speakers:** Ms Sakshi Gupta., Assistant Professor, started with the basic introduction about the event and conducted the proceedings further. The details about the sessions are attached below with the programme schedule, which was followed meticulously.

Time	INAUGURAL SESSION (10:30-12:00 PM)
10:30-10:35 AM	Welcome by <b>Dr Shalini Bhaskar Bajaj, Director, ASET</b>
10:35-10:40 AM	Introduction of Dignitaries & Theme of the Webinar by <b>Dr HRP Yadav, Prof. &amp; HOD, Civil Engineering Department.</b>
10:40-10:45 AM	Opening Remarks by <b>Rear Admiral K K Pandey, Director, Amity Academic Staff College and Director HR, Amity University Haryana</b>
10:45-10:50 AM	Address by <b>Pro Vice Chancellor, Prof. (Dr.) Padmakali Banerjee, Amity University Haryana</b>
10:50-11:00 AM	Blessings by <b>Hon’ble Vice Chancellor, Prof. (Dr.) P.B. Sharma, Amity University Haryana</b>
11:00-11:25AM	Address by the Guest of Honor <b>Dr. Ajay Mathur, Director General International Solar Alliance.</b> <b>Topic: Green Technologies for Mitigation of Global Warming and Climate Change’’</b>
11:25-11:50 AM	Address by Chief Guest, <b>Mr. R V Shahi, FIE, Chairman, Energy Infratech Private Ltd. Former Secretary (Power), Ministry of Power, Government of India</b>
11:50-11:55 AM	Vote of Thanks by <b>Dr. Sanjna Vij, Programme Director, Amity Academic Staff College, AUH</b>
<b>TECHNICAL SESSION - I (Moderator – Dr HRP Yadav)</b> <b>Theme: Role of Renewable Energy Sources – Indian Perspective, Climate Change &amp; Global Warming</b> <b>Time: 12:00 – 02:00 PM</b>	
12:00-12:20 PM	<b>Topic:</b> Research & Development on Renewable Energy Sources for achieving Green Technology. <b>Speaker:</b> Dr. A K Tripathi, JS, MNRE
12:20-12:40 PM	<b>Topic:</b> Role of Solar Energy for Mitigation of Global Warming and Climate Change <b>Speaker:</b> Dr. Jai Prakash Singh, Director (Tech), NISE
12:40-1:00 PM	<b>Topic:</b> Impact of Green Technologies on Global Warming & Climate Change <b>Speaker:</b> Shri S N Tripathi, Executive Director, NTPC (Project Management)
1:00 – 1:20 PM	<b>Topic:</b> Strategies for Reduction of Green House Gases – Indian Perspective <b>Speaker:</b> Dr. Ashok Kumar, DDG, BEE
1:20 – 1:40 PM	<b>Topic:</b> Development of Renewable Energy Sources and its Economic Viability <b>Speaker:</b> Ms. Debjani Bhatia, Additional General Manager (Technical Services) IREDA
1:40 – 2:00 PM	Closing Remarks & Summing Up the Session by Dr. HRP Yadav (Moderator)



**3.3 ‘Take Homes’ for the Guest and Attendees** Participants got the handful of knowledge about the need for Green Technologies for mitigation of Global Warming & Climate Change.

**3.4 Future plan for utilizing the contacts developed with the Invited Guests**

Through this webinar, research can be carried out on various applications in the field of green technologies for solar energy, vertical farming, waste water treatment, etc.

**3.5 Budget of the Event: Nil**

**3.6 Details of Awards if Any:**

Awardee Details	Award / Position / Recognition Secured	Title of Innovation/ Start-up Secured the Award / Recognition	Award/Recognition/Achievement Received for
NIL	NIL	NIL	NIL

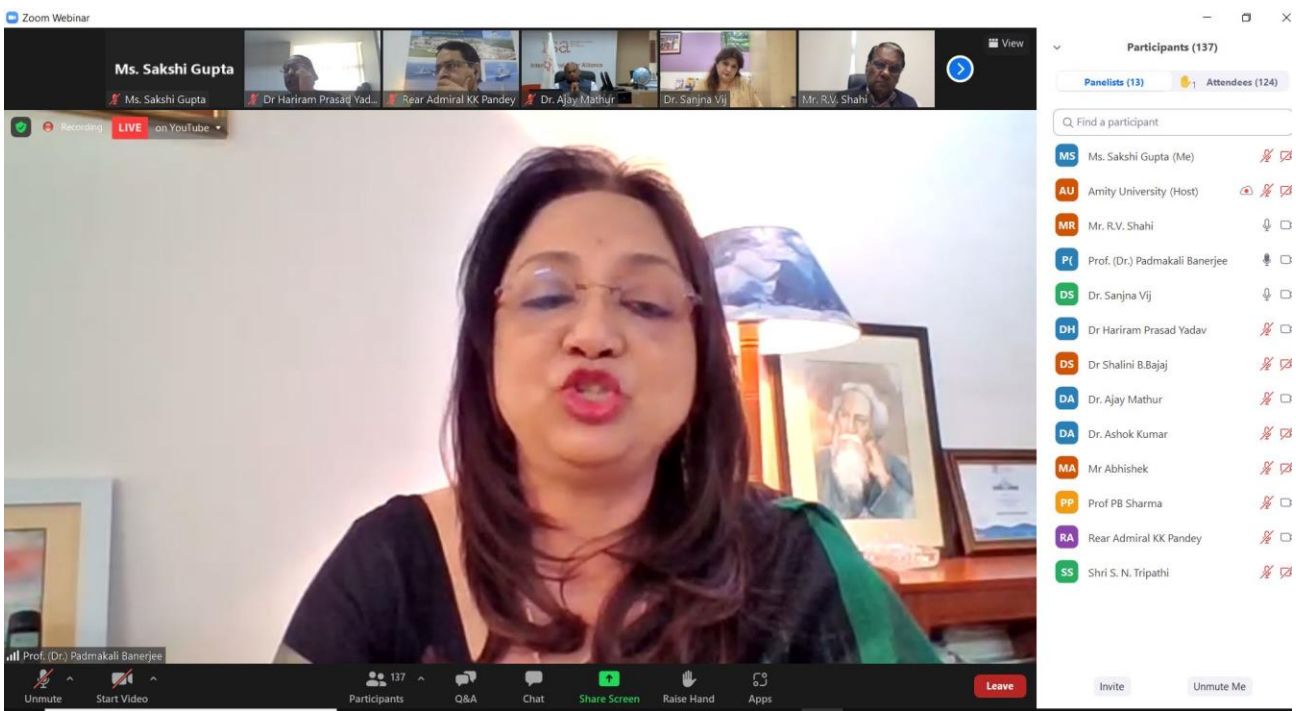
**3.7 Photographs with caption (also share high resolution JPEG files of photographs):** Attached



**Figure: Honourable Vice-Chancellor, Prof. (Dr) P B Sharma during his opening remarks**



**Figure: Introduction to the Theme of the webinar by Prof. (Dr) HRP Yadav, HOD, Civil Engineering Department**



**Figure: Honourable Pro Vice-Chancellor, Prof. (Dr) Padmakali Banerjee during her opening remarks**





**Figure: Address by the Guest of Honour Dr. Ajay Mathur**



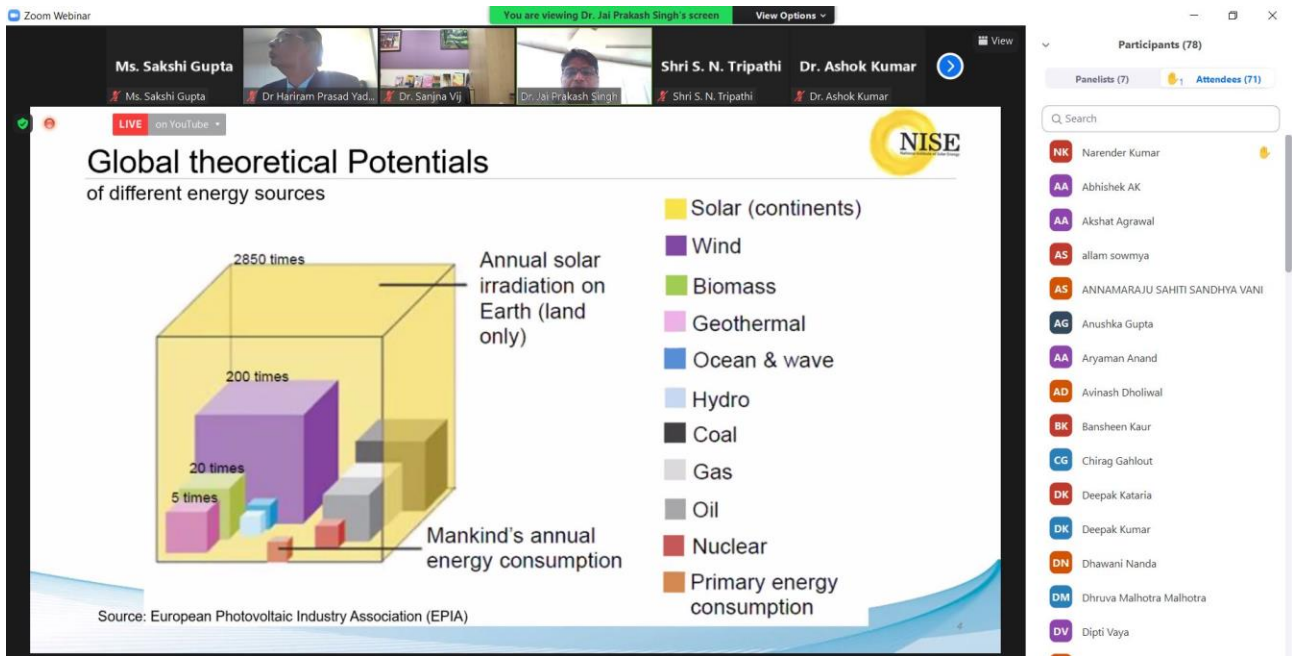
**Figure: Address by Chief Guest, Mr. R V Shahi**



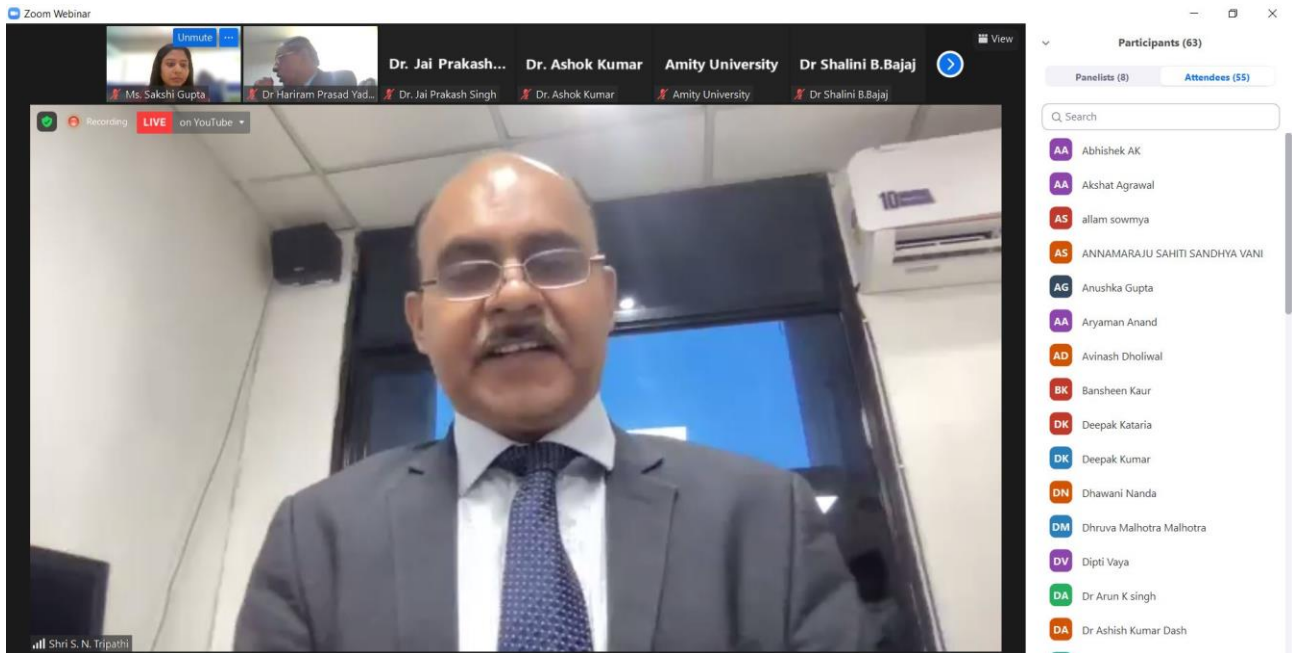
**Figure: Talk by Dr. A. K. Tripathi**



**Figure: Talk by Mr. Abhishek**

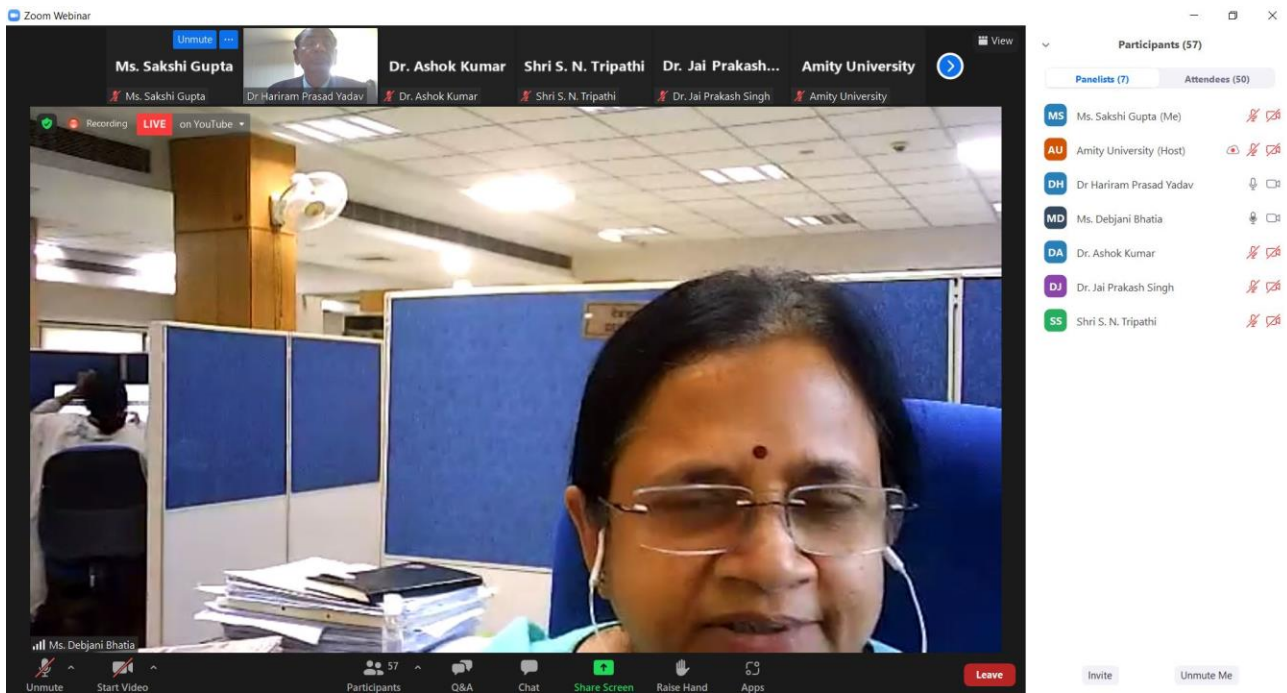


**Figure: Talk by Dr. Jai Prakash Singh**

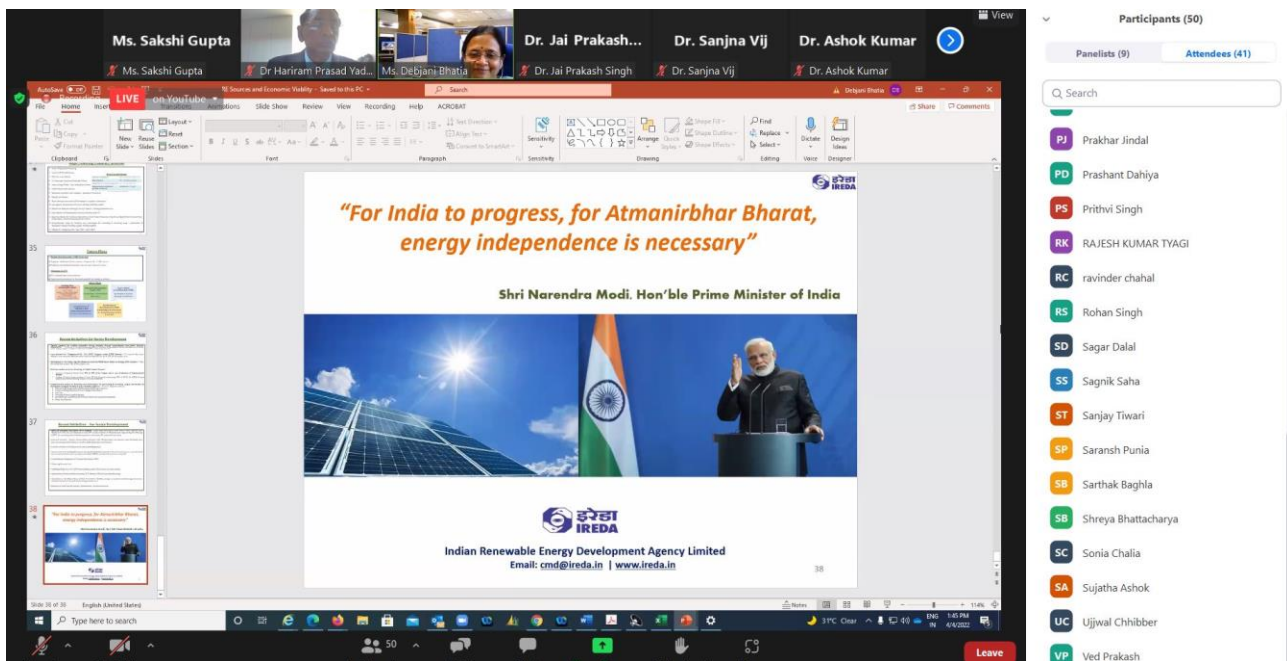


**Figure: Talk by Shri S.N. Tripathi**





**Figure: Talk by Ms. Debjani Bhatia**



**Figure: Talk by Ms. Debjani Bhatia**

**3.9 Scanned copy of few attendees attendance sheets:**

Event conducted in online mode. We have attached the list of attendees in the given format. (excel sheet attached)

**Signature of HOI**

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Outcome (DOO)

Directorate of

**Dr. Shalini Bajaj**  
Professor and Director  
ASET, AUH

Name and Signature of HoD:

Dr H R P Yadav  
Professor & HOD,  
Department of Civil Engineering, ASET

**Stamp of the Department**