



# 3rd ICSDG Conference on Extreme Weather Conditions & Climatic Change: Challenges, Issues & Societal Applications

*3rd to 5th December 2024*

## Event Report on SDG 13: Climate Action

*Organized by*

**Centre for Research in Environment, Sustainability Advocacy and Climate  
CHange (REACH), Directorate of Research, SRMIST**

*Association with*

**Atmospheric Observations and Modelling Laboratory  
Department of Physics and Nanotechnology, SRMIST  
National Institute of Ocean Technology (NIOT)  
Ministry of Earth Sciences, Chennai**



## ***Introduction:***

From December 3 to 5, 2024, SRM Institute of Science and Technology (SRMIST) in Chennai, India, will host the 3rd International Conference on Higher Education Institutions' Challenges and Solutions for Sustainable Development Goals (SDGs) (ICS DG 2024).

Climatic change accelerates weather and climate events, including torrential rainfall that creates floods, heat waves, forest fires, and more, threatening humanity. Heat stress lowered work performance by 80 million full-time employees, according to the International Labor Organization. The UN proposed sustainable development objectives, including climate action, under the section SDG13. All governments prioritize climate action to prevent regional warming and climatic variability.

Under this ICS DG 2024 conference, a separate program was organized for SDG 13 climate action. The theme of this part was “**Extreme Weather Conditions &**

**Climatic Change: Challenges, Issues & Societal Applications**”, which was subdivided into six sub-themes. The convenors of this program were **Dr. Sanjay Kumar Mehta**, Research Associate Professor from Atmospheric Observations and Modelling Laboratory, Department of Physics and Nanotechnology, SRMIST and **Dr. K. Jossia Joseph** Scientist – F from National Institute of Ocean Technology (NIOT), Ministry of Earth Sciences, Chennai. They are the experts of the subject and conducted the whole program very well.

**3rd International Conference on  
Extreme Weather Conditions & Climatic Change:  
Challenges, Issues & Societal Applications**

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Organized by  
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(REACH), Directorate of Research, SRMIST  
Atmospheric Observations and Modelling Laboratory, Department of Physics and  
Nanotechnology, SRMIST  
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**SDG 13: Climate Action**

**Convenor**

**Dr. Sanjay Kumar Mehta**  
Research Associate Professor  
Atmospheric Observations and Modelling Laboratory,  
Department of Physics and Nanotechnology,  
SRMIST

**Convenor**

**Dr. K. Jossia Joseph**  
Scientist – F,  
Ocean Observation Systems,  
National Institute of Ocean Technology (NIOT),  
Ministry of Earth Sciences, Chennai

**Event Chair**

**Prof. Paromita Chakroborty**  
Head and Professor,  
Centre for Research in Environment, Sustainability  
Advocacy and Climate Change (REACH),  
Directorate of Research, SRMIST

Climate Action calls for action to address climate change and its effects. Climate change is one of our biggest issues, affecting the environment, economics, and communities globally. It's caused by greenhouse gas emissions from burning fossil fuels, deforestation, and industrial operations. SDG 13 seeks worldwide action to prevent climate change and its effects immediately and sustainably.

SDG 13 must be met to combat climate change, protect vulnerable communities, promote sustainable economic development, and create a more fair and just future. Climate action demands global cooperation from governments, industry, civil society, and people. We will examine SDG 13 and explore creative ideas, best practices, and partnerships to accelerate progress toward a more sustainable and resilient world in the face of climate change at this conference. Our conversations and knowledge will help future generations live better and sustainably.

***The sub-themes of the program are:***

- 1) Extreme Heat Wave Events
- 2) Extreme Rainfall and Prediction
- 3) Role of Cloud & Aerosol on Radiation Budget
- 4) Climate Change projection
- 5) North East Monsoon Prediction
- 6) Role of climate change on Aquatic systems

***Program Schedules:***

A webinar was conducted on 4th December 2024, and all experts from different parts of the world gave lectures on extreme climate change actions. The presentations were highly informative, and the speakers showed real-time data to understand the necessity of the climate change study in the present time. Additionally, their talks emphasize that climate change poses a significant threat to the environment, economy, and human well-being. As global temperatures rise, extreme weather events become more frequent, and ecosystems face unprecedented challenges. To mitigate these effects, climate action is necessary at international, national, and local levels. The report included a schedule for the program.

<b>Date</b>	<b>Time</b>	<b>Speakers</b>	<b>Title of the Talk</b>
04-12-2025	10:00-10:15 AM	<b>Dr. Vinoj V</b>	Urban heating
	10:15-10:30 AM	<b>Prof. Kurian Joseph</b>	"Climate Compatible Growth
	10:30 to 10:45 AM	<b>Dr. Rakesh V</b>	"Prediction of Rainfall Extremes using Mesoscale Model"
	10:45 to 11:00 AM	<b>Dr. Madhu Chandra R</b>	"Creating an Atmospheric/weather Pillar of meteorological Measurement (climate scale coverage possibility) through a remote sensing perspective"
	11:00 to 11:15 AM	<b>TEA BREAK</b>	
	11:15 AM to 01:00 PM	<b>P. P. Musaid</b> SRM Institute of Science and Technology	
		<b>Sabarinath</b> SRM Institute of Science and Technology	
		<b>Seetha C J</b> SRM Institute of Science and Technology	
		<b>Anas Bin Firoz</b> Bharathidasan University	
		<b>Anupam Ghosh</b> SRM Institute of Science & Technology	
		<b>Hiba. P</b> SRM Institute of Science & Technology	
		<b>T. Kesavavarthini</b> SRM Institute of Science and Technology	
		<b>Meera M Nair</b> SRM Institute of Science and Technology	
		<b>Sachikanta Nanda</b> SRM Institute of Science and Technology	
		<b>Mohandas Sanjay Kumar</b> SRM Institute of Science and Technology	
	1:00 to 2:00 PM	<b>LUNCH BREAK</b>	
	2:00 to 2:30 PM	<b>Dr. Semeena V Shamsudheen</b>	Keynote Speaker
	02:30-02:45 PM	<b>Dr. Haimanti Biswas</b>	"Impacts of Climate Change on Marine Ecosystem, with a special focus on Marine Primary Producers and its consequences on Ecosystem Service"
	02:45 to 03:00 PM	<b>Dr. Siddarth S Das</b>	
	03:00 to 03:15 PM	<b>TEA BREAK</b>	

	03:15 to 04:15 PM	<b>Govindaraj T</b> RVS Agricultural College, Thanjavur
		<b>Kannan K</b> Jeju National University, Ara campus, South Korea
		<b>S. Nithila</b> HC&RI(W), Trichy
		<b>Rosna. P. Shajan</b> SRM College of Agricultural Sciences
		<b>Lorraine Tellis</b> Wilson College, Mumbai
		<b>Mohamed Arif R</b> SRM Institute of Science and Technology

A number of participants presented their work in front of our expert judges. The presentations included both oral and poster formats. It was an excellent interactive session, and students also thoroughly enjoyed the program. Each oral and poster category received three awards based on the students' presentations and defences. The awards were distributed during the valedictory program.

