

Role of IEEE Standards and Awareness Building in Climate Change Mitigation



Prof. Saifur Rahman

2023 IEEE President & CEO

www.srahman.org

Invited Talk
IEEE SA 50th Anniversary Meeting
06 November 2023
Shenzhen, China

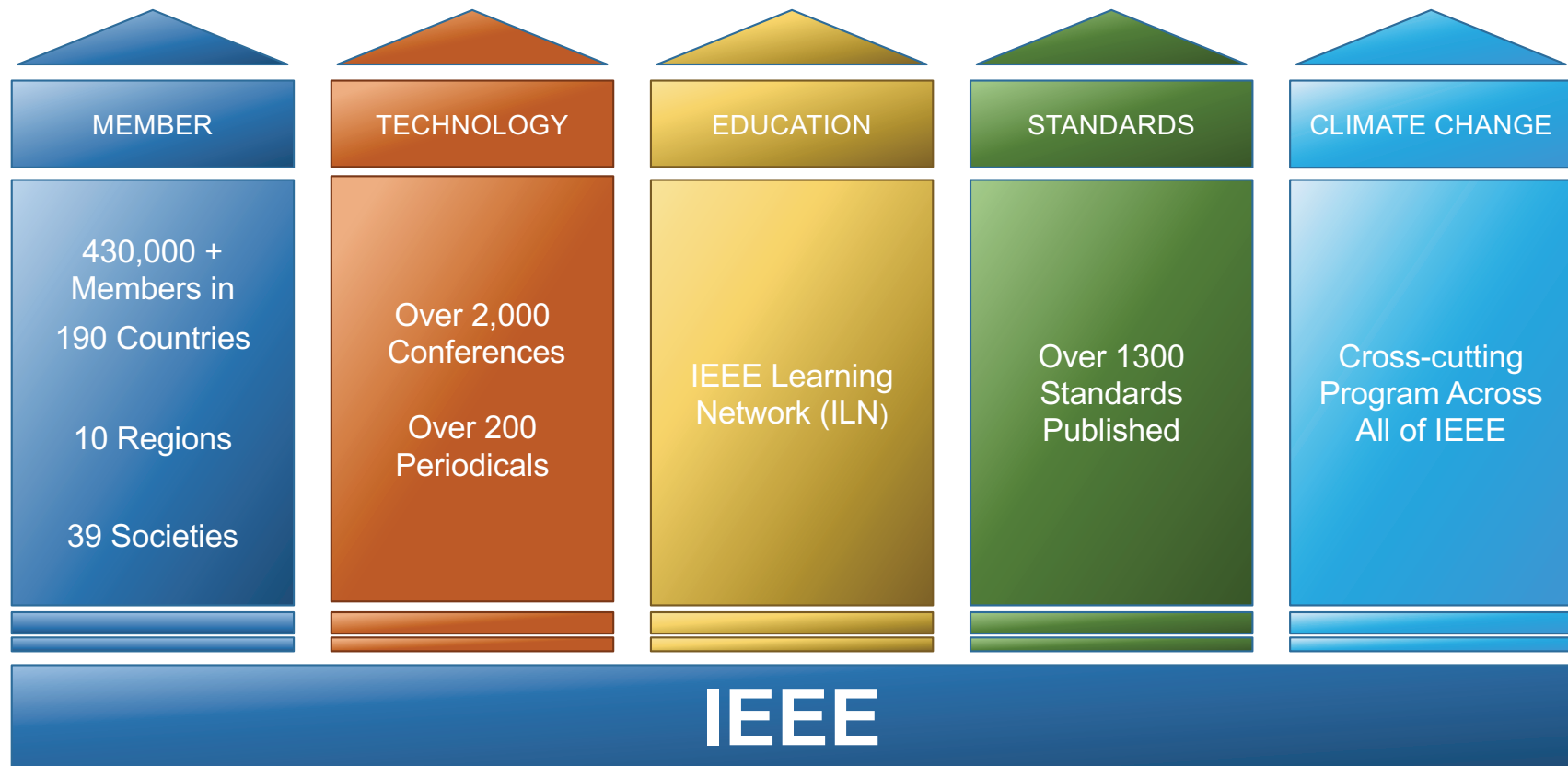




*IEEE 2023
Board of Directors
Retreat Focus*



Synergy among IEEE's areas of focus



Climate Change

IEEE: Enabling Innovation and Technology Solutions

<https://climate-change.ieee.org>





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for Humanity*

How Are We Serving the Humanity ?

Clean-tech Solutions for Climate Sustainability



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The IEEE Technology Center for Climate

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UPCOMING WEBINAR

The Progress on the Green Digital Transformation

9 November 2023

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The graphic features a person's hands holding a globe over a laptop. Several hexagonal icons are overlaid on the scene, representing various green technologies: a wind turbine, a recycling symbol, a factory with a leaf, a solar panel, and a CO2 molecule.



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Awareness Building and Participation in International Events

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Webinar Series

Empowering The Green Tech Revolution: From Design to Deployment

ITCC provides a platform to catalyze connections and ideas. Our upcoming and recent series with Reuters, *Empowering The Green Tech Revolution: From Design to Deployment* showcases the value of our approach in bringing leaders and experts together in thought-provoking, community, and partnership-building events. The webinar series explores how technology contributes to climate goals and sustainability.

EPISODE ONE

The Promise of Electrification

13 September 2023



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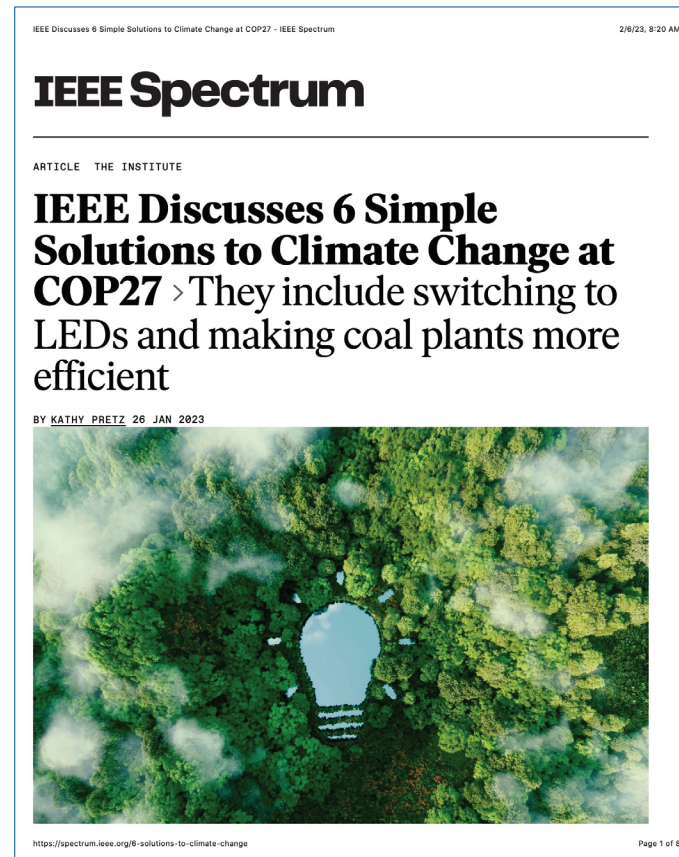
Panel

- Saifur Rahman, 2023 IEEE President and CEO
- Katharina Tomoff, Global SVP, Environment, Social & Governance (ESG), DHL Supply Chain
- Francisco Laverón Simavilla, Iberdrola Direction of Energy Policies Head of Energy Policy, Iberdrola
- Moderator: Ursula Woodburn, the Cambridge Institute for Sustainability Leadership Europe



Advancing Technology for Humanity

Source: IEEE Spectrum,
January 2023



Opportunities of Decarbonization in the Electric Power Supply Industry

Source: IEEE Spectrum, Jan 2023



Reduce Carbon Emissions

1. Use less electricity, energy efficiency
2. Use low carbon fossil fuel power plants
3. Use H₂ & other storage technologies
4. Promote more renewables
5. Accept some nuclear
6. Promote cross-border power transfer

A Few Relevant Standards



IEEE 2747-2020

IEEE Guide for Energy Efficiency Technology Evaluation of Electric Power Fittings

IEEE 1547-2018

IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces

IEEE 2030.3-2016

IEEE Standard Test Procedures for Electric Energy Storage Equipment and Systems for Electric Power Systems Applications



IEEE 1547a-2020

IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces--Amendment 1: To Provide More Flexibility for Adoption of Abnormal Operating Performance Category III

IEEE 765-1983

IEEE Standard for Preferred Power Supply for Nuclear Power Generating Stations

IEEE 3001.5-2013

IEEE Recommended Practice for the Application of Power Distribution Apparatus in Industrial and Commercial Power Systems



The Integration of DER into the Distribution Network

IEEE 1547-2018

IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces

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Active Standard



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Standards Relevant to Building Automation

P2688

Recommended Practice for Energy Storage Management Systems in Energy Storage Applications

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IEEE 2030.3-2016

IEEE Standard Test Procedures for Electric Energy Storage Equipment and Systems for Electric Power Systems Applications

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IEEE's Presence at the UN Conference on Climate Change (COP27) Egypt, November 2022

Climate
Change

IEEE Enabling Innovation and Technology Solutions



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IEEE at UN Climate Change Conference



Partnership with International Renewable Energy Agency (IRENA)

Founding Partners: Energy Transition Education Network



Speakers at the IRENA Panel at COP27

International Renewable Energy Agency



COP27 Event by IRENA

Energy Transition Education Network



IEEE/WFEO/EIC Participants at COP27



Energy Day 15 November 2022



IEEE at UN COP28 Dubai, December 2023



IEEE Climate Change Program

<https://climate-change.ieee.org>



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TECHNICAL
Solutions

BUILDING
Technical Community

CLIMATE CHANGE
Mitigation

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RESOURCES FROM IEEE

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As the world's largest organization of technical professionals, IEEE has both the opportunity and the responsibility to assist in organizing the response of engineers, scientists, and technical professionals across the world to address the causes, mitigate the impact, and adapt to climate change.

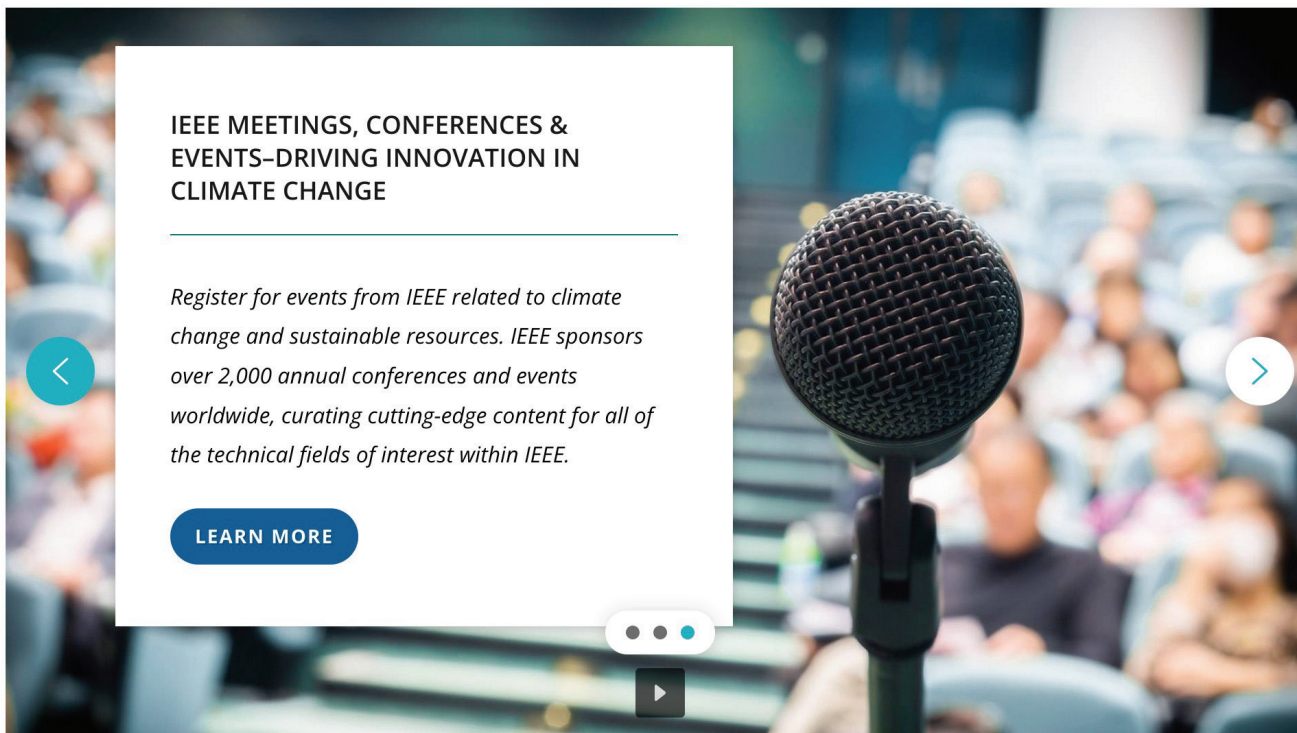
IEEE's scholarly publications, events, conference proceedings, technical standards, and other materials help foster the exchange of technical knowledge and information for the critical climate issues that our planet faces today.



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IEEE Climate Change Newsletter



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IEEE Climate Change Engagement Opportunities

Sections, Regions, Globally



The Climate Change Pavilions in the Sections Congress in Canada and the IEEE TenCon Conference in Chiang Mai, Thailand



2023 IEEE President and CEO Social Media Channels

There are four social media channels for the IEEE President:

<https://www.facebook.com/ieeepresident>



<https://www.instagram.com/ieeepresident/>



<https://www.linkedin.com/showcase/ieeepresident>



<https://twitter.com/ieeepresident>



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Thank you

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