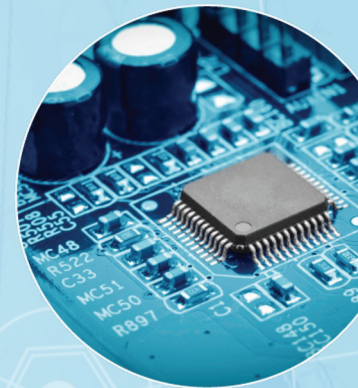




# Smart Grid as a Tool to Facilitate Climate Resilience



Saudi Arabia Smart Grid Conference  
Riyadh, Saudi Arabia

*18 December 2023*

Invited Talk

Prof. Saifur Rahman  
IEEE President and CEO



# The Smart Grid Ecosystem

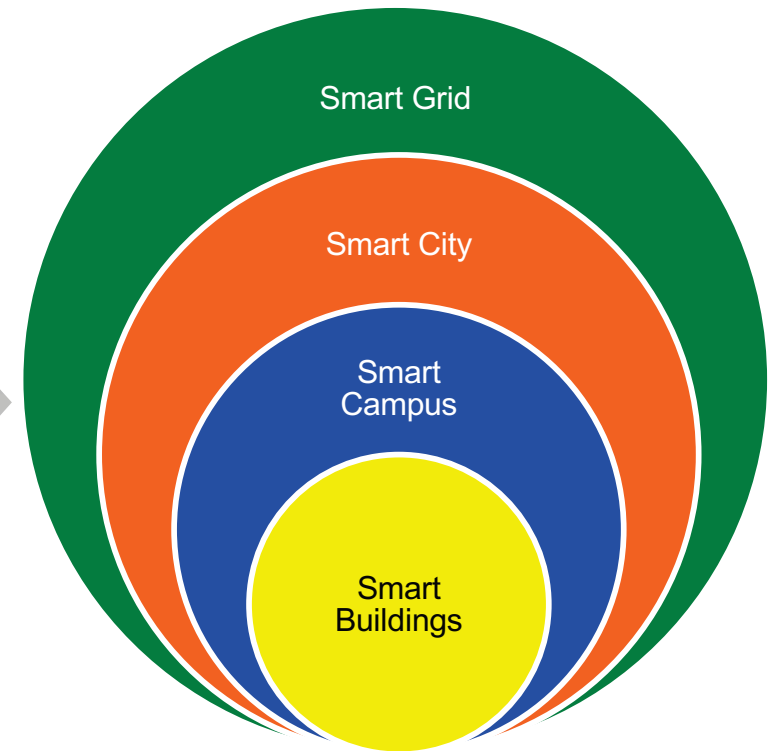
**Smart grid:** Bi-directional flows of energy, remote control/automation of power, integrated distributed energy...

**Smart city:** Complex system of interconnected infrastructures and services...

**Smart Campus:** A collection of buildings managed by the same facility manager...

**Smart buildings:** Intelligent building automation systems, smart devices, productive users, grid integration...

# Ecosystem

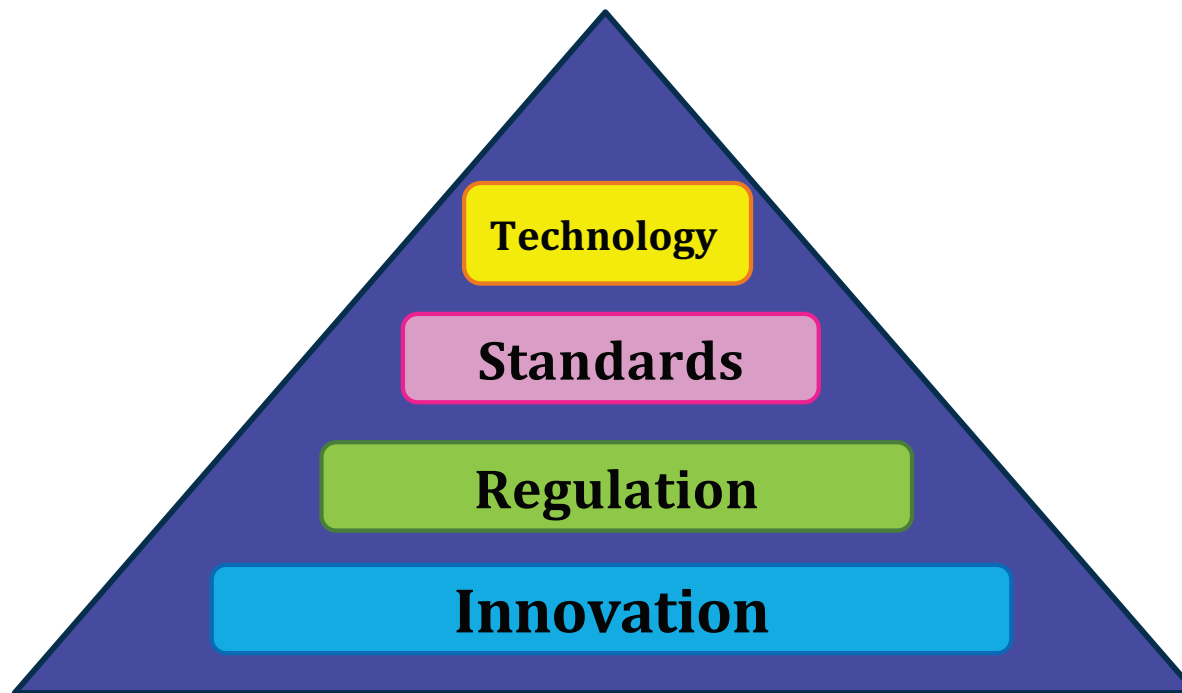


← Supported by ICT and distributed networks of intelligent sensors, data centers/clouds →



## Smart Grid can Integrate Renewables and Storage to Address Climate Change





## Building Blocks of the Smart Grid

# IEEE is Inspiring a Global Community of Innovation

*Where forward-thinking technology professionals collaborate*

- ▶ Discover what's next in technological innovation
- ▶ Create international standards
- ▶ Build technical communities
- ▶ Shape and share research

## Our Mission

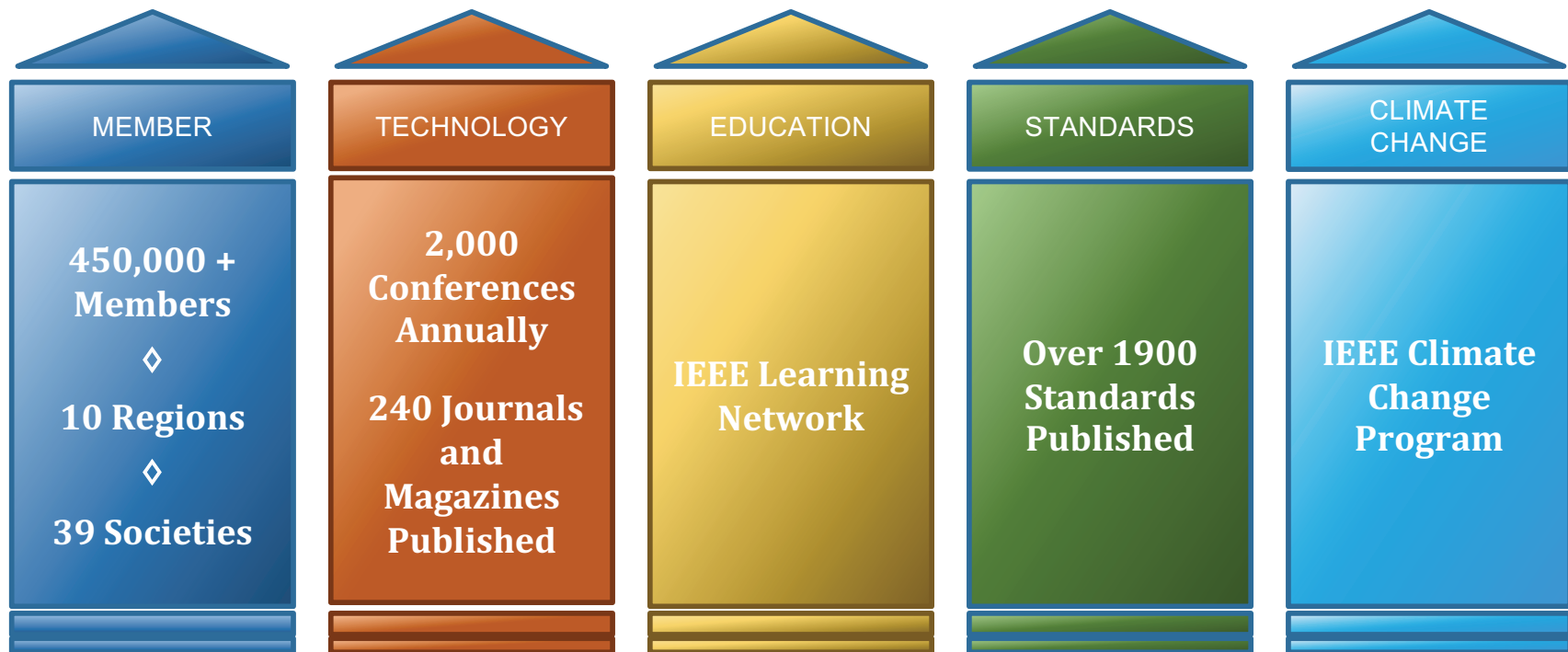
The core purpose of IEEE is to foster technological innovation and excellence for the benefit of humanity

## Our Vision

IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions



## Synergy among IEEE's areas of focus



IEEE



# Climate Change

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**IEEE:** Enabling Innovation and Technology Solutions

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



# IEEE Climate Change Program

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

Climate  
Change

IEEE: Enabling Innovation and Technology Solutions

[Resources from IEEE](#)

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MAKING A  
DIFFERENCE

<b>TECHNICAL</b> Solutions	<b>BUILDING</b> Technical Community	<b>CLIMATE CHANGE</b> Mitigation
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Thank you  
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