

## Department of Electrical Engineering INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR



## DIGITAL TRANSFORMATION IN POWER TRANSMISSION

As India pursues an unprecedented integration of 500 GW of renewable energy, the national transmission grid is undergoing its most profound evolution, yet from a robust network of steel and conductors to an intelligence data driven digital ecosystem. This session focuses on the practical realities of this digitalization, moving beyond theoretical concepts to explore the tangible use cases that are redefining grid reliability, efficiency and resilience. Areas like data analytics, Asset Performance management, Grid Capacity enhancements, Automated decision making will be discussed. Finally, the critical challenges of scaling these use cases amidst cyber security threats, data silos and evolving regulatory landscape shall be discussed. Session will give a unique opportunity to collaborate between industry and academia and identify the areas of working together.



October 6, 2025 | 11:30 AM - 1:00 PM

Academic Block 7/102, IIT Gandhinagar



Mr Nihar Raj

Senior Vice President, Head, O&M Adani Energy Solutions Ltd Chairman, CIGRE India NSC B3 (Substations)