

## dominated Future

# Organized and co-chaired by:

**Call for Papers** 

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#### Technical Outline of the Session:

With growing integration of renewable energy, electric vehicles, and power electronics, power quality (PQ) issues and harmonics have emerged as major concerns in modern power systems. This special session offers a platform for researchers, industry professionals, and utility experts to share recent developments, solutions, and experiences in tackling PQ challenges. Topics will include harmonic analysis, mitigation techniques, and evolving standards. Aligned with the conference theme, the session addresses a critical research and application area essential for ensuring grid stability and reliability. It aims to promote knowledge exchange, foster collaboration, and highlight innovative, practical solutions for managing PQ and harmonics in the evolving energy landscape.

### Topic of the Session includes, but are not limited to:

- Advanced techniques for harmonic analysis and measurement.
- Power quality monitoring, assessment, and mitigation methods.
- Impact of renewable energy integration on power quality.
- Harmonic issues in smart grids and microgrids.
- Signal processing and machine learning approaches for PQ management.
- Passive, active, and hybrid filtering techniques for harmonic suppression.
- Custom power devices and solutions for power quality improvement.
- Case studies on power quality issues in industrial and utility networks.
- Standards, regulations, and compliance related to power quality and harmonics.
- Harmonic mitigation strategies for RES, EVs, and other power electronic devices

: October 30, 2025

- Al applications in Power Quality
- Grid-interactive inverters for PQ improvement

#### Important Dates:

- Special Session Paper Submission Due : June 15, 2025
- Notification of Paper Acceptance : July 31, 2025
- Camera Ready Paper Submission Due : August 31, 2025
- Regular Registration Due







**Submission Portal** 

https://nitgoa.ac.in/STPEC2025/specialsessions.html