

14 ICEEE 2027

2027 14th International Conference on Electrical and Electronics Engineering

Co-sponsored by



Ankara, Türkiye

April 16-18, 2027

Special Session 2

Grounding Systems and Electromagnetic Transients: Optimizing Grid Geometry Against Fast-Front Lightning Surges

Driven by stringent lightning protection and transient safety requirements for power and civil infrastructure, this special session focuses on the design, evaluation, and optimization of advanced grounding systems for electrical engineering applications. Topics span high-frequency transient impedance analysis, nonlinear soil ionization behavior, optimized electrode and foundation grounding structures, edge field diagnostic methodologies, and SPD-surge grounding coordination. We also welcome material innovations for low-inductance backfill and conductive components, as well as empirical tests and real-site lightning mitigation case studies. This session fosters interdisciplinary exchange between civil and electrical engineering to develop resilient, high-performance grounding solutions for next-generation power system surge protection.

SESSION CHAIRS



Prof. Dr. Ali Sebetci

OSTIM Technical University
Department of Computer Engineering, Ankara, Turkey

TOPICS OF INTEREST



- Safe methods and procedures on the measurements of grounding systems at low voltage low current and impulse injections, which include development of auxillary/remote/ return ground test facilities and impulse testing techniques by field measurements
- Factors affecting the performance of grounding systems under high impulse currents
- Development of various soils/materials and ground electrode designs under impulse currents
- Assessment on piled structure as grounding system in comparison to typical grounding systems
- Performance of protective devices in various grounding systems
- Study on discharges in soil through imaging techniques

IMPORTANT DATES



Submission Deadline:	December 1, 2026
Notification Deadline:	January 1, 2027
Camera-ready & Registration Due:	January 20, 2027

SUBMISSION



Submit Online: <https://easychair.org/my/conference?conf=iceee20270>

Paper Templates:

Word: <https://www.iceee.org/instruct8.5x11x2.doc>

LaTeX: <https://www.iceee.org/ieee-latex-conference-template.zip>

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