Special Session on

Motor and Generator Windings - Design, Manufacturing, and Maintenance

Organized and co-chaired by:

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Abstract

Windings are a key part of electric motors and generators, strongly impacting their efficiency, reliability, and manufacturing cost. Hence, the respective design optimization, considering the manufacturing constraints, is of major importance.

Topics of interest include, but are not limited to:

- Windings for asynchronous and synchronous motors/generators.
- Distributed/concentrated and integer-/fractional-slot windings.
- Multiflux/multivoltage, partial, Dahlander, and other special winding types.
- Winding connection-mode change for flux/torque adjustment.
- Windings for axial-flux motors (including copper/aluminum foil coils).
- Industrial winding manufacturing materials, processes, and constraints.
- 3D-printed windings (materials, geometries, performance, etc.).
- Winding insulation system (materials, partial discharges, and fault diagnosis).
- Stator winding heat dissipation (impregnation, potting, cooling techniques, etc.).
- Rotor winding/cage (design, materials, motor performance, etc.).
- Winding design, modeling, simulation, and performance evaluation.
- Winding optimization techniques/methods.
- Best practices for motor/generator rewinding/repair.
- Hairpin windings for automotive applications.

Important dates

- Full Paper Submission: February 1, 2026
- Full Paper Notification: May 1, 2026
- Final Paper Upload: June 1, 2026

Submission of papers

Paper submission follows the rules of regular papers. All the instructions for paper submission are included in the conference website:
https://icem2026.ubi.pt/submission.html