



Grid-Forming Converters in Future Power Grids

Guest Editor:

Dr. Mebtu Beza

Department of Electrical
Engineering, Chalmers University
of Technology, 412 96
Gothenburg, Sweden

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Message from the Guest Editor

Dear Colleagues,

With the transition toward sustainable and clean energy supply, future power grids will undergo a big change. In line with this transition, renewable energy sources (RESs) are predominantly interfaced to power grids through power–electronic converters. As these green energy sources are replacing conventional generation units characterized by rotating masses, the power system will be faced with several challenges. To address these challenges, grid-forming converter control strategies with a focus on implementing functionalities such as inertia and frequency support, black-start, synchronization and fault-ride, have been attracting attention in the literature in recent years. Some efforts have also been made in ensuring passive behavior for grid-forming converter systems to reduce resonance interactions at low- and high-frequency intervals.

This Special Issue aims to present and disseminate the most recent advances related to the design, modeling, application and control of grid-forming converters. Hence, I invite researchers and industry experts to contribute to research papers and review articles on the subject.





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Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and
Aerospace Engineering,
University of Roma Sapienza, Via
Eudossiana 18, 00184 Roma, Italy

Message from the Editor-in-Chief

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Energies Editorial Office
MDPI, Grosspeteranlage 5
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