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# Applications of Capacitors in Power Electronics

Guest Editor:

**Prof. Dr. Thomas Ebel**
Head of the Centre for Industrial Electronics, Department of Mechanical and Electrical Engineering, University of Southern Denmark, 6400 Sønderborg, Denmark

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## Message from the Guest Editor

Capacitors are found everywhere in power electronics. They are used as DC-link capacitors in power converters in power generation with renewables, HVDC power transmission, train traction, or EVs. They are also used further in filter applications for grid stability.

This Special Issue focuses on the enhancement of power quality and stability of modern power systems through power-electronic-based solutions. It aims to lay a foundation for the further integration of renewable energies in future renewable-dominated power systems. The topics of interest for this Special Issue include, but are not limited to, the following:

- New materials and designs of aluminum electrolytic capacitors, especially polymer and hybrid-polymer capacitors;
- Materials and designs of tantalum electrolytic capacitors;
- New materials and designs of metalized film and power capacitors;
- New materials and design of ceramic capacitors;
- Condition monitoring of capacitors using artificial intelligence and machine learning.

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**Prof. Dr. Flavio Canavero**
Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy


## Message from the Editor-in-Chief

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*Electronics* Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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