Special Issue

Power Systems: Protection and Connection with Converters

Message from the Guest Editor

The integration of intermittent renewable energy sources (such as solar and wind) into microgrids requires the use of power electronic converters with sophisticated controllers to maximise their energy recuperation. There are major problems with the use of such power electronic converters. They have limited thermal ratings and contribute little, if any, rotational inertia to the microgrids that they are connected to. The lack of injected rotational enertia makes these microgrids particularly vulnerable to instability issues. Special protection and control strategies are therefore needed to efficiently and fully utilize such converters in the integration of intermittent renewable energy sources. These power electronic converters can have the role of either grid following or grid forming. Modern control techniques can enable these converters to provide virtual inertia to overcome instability issues. This Special Issue will deal with many of these topics.

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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