Special Issue

Distribution Power Systems and Power Quality

Message from the Guest Editor

Wind, photo-voltaic and biomass based power generation systems have fluctuating power production due to weather conditions and on-off control dependent of heat demand. Further, most new power generation units have power electronic converters, which may inject harmonics and affect power quality. At distribution level, the hosting capacity is not only affected by new power generation units which may lead to over voltages, but also large, new loads which might lead to under voltages and also cause harmonic injections. Another concern is reliability; will we have less interruptions due to higher possibilities for ancillary services from the small units, or will the integration of the new units lead to more interruptions since they replace some of the central power plants? Finally, the protection system might be affected by reverse power flow and shifting short circuit level. Therefore, this Special Issue focus on hosting capacity of distribution grids, how to counteract voltage fluctuations and harmonics and how to ensure reliability and stability of the future power system in distribution systems with high dispersed power generation.

Guest Editor

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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