Special Session on

Power quality improvement for Renewable Energies Systems: Application of intelligent and nature-inspired techniques

To overcome the pollution problems caused by the consumption of fossil fuels, renewable energies are the alternatives recommended to ensure green energy. However, *low power factor (PF) and bad total harmonic distortion (THD) generated by nonlinear loads affects the equipment's connected to the renewable source.* The problem of harmonic pollution has lead researchers in electrical engineering to develop more effective solutions to meet the requirements for the quality of electric power. Several new methods based on intelligent and nature-inspired techniques control methods are used to control these systems (neuronal, fuzzy logic, FPA, DEA….)

All innovative topics on the power quality improvement regarding any component of renewable energy system are welcome to join this special session. The session covers topics including, but not limited to:

- **Application of nature-inspired approaches in renewable energies systems: Particle Swarm Optimization, Harmony Search, Pattern Search, Simulated Annealing, Artificial Bee Colony, Artificial Bee Swarm Optimization, Modified Artificial Bee Colony, Bird Mating Optimizer, Cuckoo Search, Artificial Fish Swarm Algorithm, Biogeography Based Optimization Algorithm with Mutation, Artificial Immune System, Differential Evolution Algorithm, Flower Pollination Algorithm, Bat algorithm**
- **Intelligent control: neuronal, fuzzy, ANFIS, Genetic algorithm**
- **AC/DC converters with high power quality for renewable energy systems**
- **DC/DC Converters in renewable energy applications**
- **Active power filters (shunt, series and hybrid)**
- **Sinus and PWM rectifiers**
- **Vienna rectifier applications in renewables energies**
- **Unity Power Factor corrector UPFC**
- **Power sources (PV and Wind)**
- **Power storage by batteries**

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Papers submission deadline:

Full paper Submission:	**July 31, 2017**
Notification of acceptance:	**August 31, 2017**
Final submissions due:	**September 15, 2017**

All the instructions for paper submission are included in the conference website. **http:// www.icrera.org**