



**IEEE 18<sup>th</sup> Power Electronics and Motion Control Conference (IEEE – PEMC 2018)**  
**Hungary, Budapest (Europe), August 26-30, 2018**

**Special Session SS4 on**  
**New Techniques of Control Applied to Renewable Energy Systems**

**Call for Papers**

**Abstract:** Several sources of renewable energy are subject of advanced research, which the aim is to develop techniques for extracting power with high reliability, lower cost and increased energy efficiency. The goal of this session is to present new techniques of control applied in renewable energy systems (wind, solar), to maximise the energy production in such systems, to have an optimal functioning of these systems and to increase their economic attractiveness.

**Introduction:** Renewable energies as: solar, wind, ... are clean and constitute an alternative to meet the needs of today's society. These energies neglected in the past, find their proper place, obtained through research and studies that are increasingly diverse and multidisciplinary.

In this session we focus on the conversion of renewable energies: wind and solar into electrical energy. These energy sources become competitive to other energy sources. They are object of advanced researches, which aim to develop new techniques of control for extracting power with high reliability, lower cost and increased energy efficiency. In this context, the present session focuses on wind energy using electrical machines (Induction generator, synchronous generators, ...) and solar energy using Photovoltaic generators. The use of these energies is with big benefits in the case when they are connected to the electrical networks and in the case when they are used in isolated areas. The evolution of technology in this field is going so fast.

The aim of this session is to share the last researches on techniques of control used for optimal functioning of the energy conversion systems; and to present new technologies used in the field of production of electricity from wind and solar energy sources.

**Topics of interest include, but are not limited to:**

- New techniques of control applied to Wind turbine
- New techniques of control applied to photovoltaic system
- The use of new technology of power electronics in the control of renewable energies

**Submission procedure:** This is the same as for regular papers.

All the instructions for paper submission are included in the conference website: <http://ieee-pemc2018.org>

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**Deadlines:** Full paper submission (maximum 6 pages): **18 March 2018**  
Paper acceptance notification: **8 April 2018**  
Final manuscript and early payment: **8 June 2018**