



CALL FOR PAPERS

“Efficient and reliable photovoltaic systems”

The Theme: Renewable energies, particularly photovoltaic sources, are more often used together with the classical ones in order to have a local production that cut down the use of classical fuels and improves the reliability of the supplying. Such grid-connected applications fix mandatory constraints to power electronic converters in order to meet power quality specifications and to draw the maximum power conversion from the renewable energy into the electrical one. On the other side, stand-alone applications of renewable energies are gaining an increasing interest due to the spread of portable systems for telecommunications, remote sensing, military apparatuses, aerospace applications, etc. In the context of renewable energies, photovoltaic energy is the most promising due to the low environmental impact, the need of no maintenance after installation are encouraging perspectives in terms of costs and efficiencies. The main objective of this Special Section is to bring the ideas of the worldwide research community into common platform, to present the latest advances and developments in design, mathematical modeling, power electronic control, computer simulation tools, and practical implementation of renewable energy systems based on photovoltaic cells. Topics of interest include, but are not limited to:

- Reliability of photovoltaic systems
- Stand-alone and grid-connected applications
- Energy harvesting by photovoltaic cells
- Maximum Power Point Tracking Techniques
- New uses of the photovoltaic energy
- Non linear modeling and simulation techniques of photovoltaic systems
- Power electronics for photovoltaic systems: battery chargers, dc-to-dc converters, single and multi-stage photovoltaic inverters, new converter topologies for PV network integration, etc
- Power electronic converters control strategies used in photovoltaic applications

Manuscript Preparation and Submission

Follow the guidelines in “Information for Authors” in the IEEE Transaction on Industrial Electronics <http://tie.ieee-ies.org/tie/>
Please submit your manuscript in electronic form through Manuscript Central web site: <http://mc.manuscriptcentral.com/tie-ieee>. On the submitting page #1 in popup menu of manuscript type, select: SS on Efficient and reliable photovoltaic systems.

Timetable

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| Deadline for manuscript submissions | October 30, 2008 |
| Information about manuscript acceptance | February 2009 |
| Estimated publication date | June 2009 |

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