IEEE Transactions on Industrial Electronics

CALL FOR PAPERS

"Modulation Techniques for DC to AC Power Converters"

The Theme: Modulation techniques are a key aspect of modern power converters used in a wide range of important applications in diverse areas such as automotive, aerospace, renewable energy generation, communications, mining industry, marine propulsion, power systems, and several other industrial processes. The evolution in these applications has fostered the development of several new DC to AC topologies including multi-phase inverters, multilevel inverters, and variants or improvements to traditional power converters, to name a few.

The development of new, and sometimes more complex, DC to AC topologies comes along with the challenge to adapt or develop new modulation methods. The inherent additional complexity of some new DC to AC converters, for example inverters with more power switches, can also open a wide range of possibilities and extra degrees of freedom that can be used to improve several operational aspects through a proper modulation strategy design. In addition, some applications and their evolution have also imposed new requirements on the efficiency and power quality of the inverter operation, which is directly related to its modulation. As consequence, a large number of different modulation algorithms can be developed or adapted, each one with unique features and drawbacks, depending on the application.

The aim of this Special Section on Modulation Techniques for DC to AC Power Converters is to group the most recent and advanced works in which the modulation is the main or unique focus of the contribution. Topics of interest of this Special Section include, but are not limited to:

- Modulation techniques for single-phase and multi-phase inverters
- Modulation strategies for multilevel DC to AC converters
- Modulation methods for current source inverters
- Power loss minimization or efficiency of modulation strategies
- Computational cost efficient modulation techniques
- Power quality analysis of modulation methods
- Voltage balancing methods using modulation schemes
- Harmonic control modulation techniques (e.g. selective harmonic elimination, etc.)
- Fault tolerant modulation schemes

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: *Modulation Techniques for DC to AC Power Converters*.

Timetable

Deadline for manuscript submissions	**September 30, 2011**
Information about manuscript acceptance	**January 2012**
Estimated publication date	**May 2012**

Guest Editors

Jose I. Leon (Corresponding Guest Editor), Electronic Engineering Department, University of Seville, Avda. Camino de los descubrimientos s/n, 41092 Seville, SPAIN, Tel: +34 95 448 1312, Fax: +34 95 448 7373, *jileon@gte.esi.us.es*
Leopoldo G. Franquelo, Electronic Engineering Department, University of Seville, e-mail: *lgfranquelo@ieee.org*
Bin Wu, Department of Electrical and Computer Engineering, Ryerson University, e-mail: *bwu@ee.ryerson.ca*
Samir Kouro, Department of Electrical and Computer Engineering, Ryerson University, e-mail: *samir.kouro@ieee.org*

Editor-in-Chief: **Mo-Yuen Chow,** *chow@ncsu.edu* Tel: +1-919-515-7360

Journal Administrator: **Sandra McLain** *tieadm@auburn.edu* Tel: +1-334-844-1887