

CALL FOR PAPERS

SPECIAL SESSION (SS):

PROPUESTA: ADVANCED POWER ELECTRONICS FOR 4.0 INDUSTRY

ORGANIZERS:

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Dear Colleagues,

The organizers of this special session encourage you to participate to publish contributions aimed to recent advances in control and design of power electronics for the 4.0 industry requirements. The use of renewable energies is continuously increasing and they are replacing the fossil fuels, thus, the power electronics energy systems are the present and the future of the energy conversion systems. All around the world, there is an energetically revolution that requires technological contributions in the area to stablish electrical energy systems able to integrate efficiently, reliably and safely solutions. The scope of the SS is related but not limited to recent advances on power electronics applied to grid-connected and standalone power converters for renewable energy systems, smart grids and electromobility. For instance, the following topics are suggested.

- Transformer-less grid-connected converters,
- Virtual Inertia systems through power electronics,
- Stochastic control for renewable-based generation systems,
- Power converters for renewable energy systems in smart grids,
- Advanced control techniques applied on smart grids and renewable energy systems,
- Integration of renewable energies sources,
- Energy storage systems,
- Power converters for solar energy,
- Power converters for wind turbines,
- Grid Integration of wind farms,
- DC-DC power converters applied to the use and conditioning of RES,
- PWM techniques for DC-AC power converters,
- Efficient grid-connected converter,
- Efficient power converters suitable for MPPT,
- Battery management systems,
- Fault diagnostic in power converters for renewable energy systems.
- Power electronics for electric vehicles
- Control and energy conversion for microgrids

The accepted papers that fulfill the conference publication policies will be indexed by IEEE Xplore.

General information regarding manuscript submission, important dates, conference fees, and local accommodation can be found at the website: <http://gtdla-ropec24.ieeesco.org>

**Sincerely yours,
Organizers of the SS**

PANFILO RAYMUNDO MARTINEZ-RODRIGUEZ (M'09) received his Ph.D. degree in Applied Sciences from a Mexican Council of science and Technology research center-IPICYT, San Luis Potosi, Mexico, in 2007. From 2006 to 2016, he was a Professor-Researcher at the Technological Institute of Superior Studies of Irapuato (ITESI), Mexico. He is currently a Professor at the School of Sciences at the Autonomous University of San Luis Potosi (UASLP), San Luis Potosi, Mexico. His contributions are mainly aimed on the fields of industrial electronics, power electronics and automatic control, where his main research interests include modeling, analysis, control design of power electronic systems for power quality and renewable energy systems.

Gerardo Vazquez-Guzman (M'07) was born in Mexico, Mexico, on September 24, 1977. He received the B.S. degree in electronic engineering from the Technical Institute of Apizaco, Tlaxcala, Mexico, in 2003, the M.S. degree in electronic engineering from the National Center of Research and Technological Development, Cuernavaca, Mexico, in 2006 and the Ph.D. degree in electrical engineering from the Technical University of Catalonia in Barcelona, Spain, in 2013. In 2009, he was a Visiting Scholar at the Aalborg University, Aalborg, Denmark. Since 2012 he is with the Technological Institute of Superior Studies of Irapuato holding a Full Time Professor-Researcher position at the Electronics Department. His research interests include the analysis and design of power electronics converters, renewable energy systems and grid connected converters.

FERNANDO ORNELAS-TELLEZ (M'11) was born in Patzcuaro, Michoacan, Mexico, in 1981. He received the B. Sc. degree from Instituto Tecnológico de Morelia (ITM) in 2005, the M.Sc. and D.Sc. degrees in electrical engineering from the Advanced Studies and Research Center of the National Polytechnic Institute (CINVESTAV-IPN), Guadalajara Campus, in 2008 and 2011, respectively. Since 2012 he has been with Universidad Michoacana de San Nicolas de Hidalgo, where he is currently a professor of Electrical Engineering graduate programs. His research interest centers on optimal control, neural control, sliding modes control and passivity, and their applications to smart grids, power electronics, mechanical systems and electrical machines.