CALL FOR PAPERS

IECON 2013 - The 39th Annual Conference of the IEEE Industrial Electronics Society
10th -13th of November 2013, Austria Center, Vienna, Austria
www.iecon2013.org

IECON 2013 is the 39th Annual Conference of the IEEE Industrial Electronics Society, focusing on industrial and manufacturing theory and applications of electronics, controls, communications, instrumentation and computational intelligence. The objectives of the conference are to provide high quality research and professional interactions for the advancement of science, technology, and fellowship. Papers with new research results are encouraged for submission. IECON 2013 will be held concurrently with the 7th IEEE International Conference on E-Learning in Industrial Electronics (ICELIE 2013). Participation in any of these events just requires a single conference registration fee.
The world's industry, research, and academia are cordially invited to participate in the wealth of presentations, tutorials, special sessions and social activities, and furthermore, enjoy beautiful Vienna.
Topics of interest include:

- Power Electronics & Energy Conversion
- Renewable Energy & Sustainable Development
- Power Systems
- Electronic System on Chip & Real Time Embedded Control
- Signal and Image Processing & Computational Intelligence
- Electrical Machines & Drives
- Control Systems & Applications
- Sensors, Actuators and Systems Integration
- Mechatronics & Robotics
- Factory Automation & Industrial Informatics
- Information Processing and Communications

The organizers look forward to welcoming you to Vienna, Austria from 10th to 13th November 2013.

Important Dates

Special Session Proposals:	February 01, 2013
Regular Paper submission:	April 30, 2013
Tutorial Proposals:	May 01, 2013
Notification of acceptance:	June 15, 2013
Final submission:	August 01, 2013

ORGANIZING COMMITTEES

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SUBMISSION OF PAPERS

The working language of the conference is English. Submit the full paper as PDF following the IEEE layout requirements by using the templates given at the conference web page. Accepted and presented papers will be published in an IEEE Proceedings volume and will be included in IEEE Xplorer and indexed by EI Compendex. In addition, selected authors are encouraged to submit their papers for publication in the IEEE Transactions on Industrial Electronics or in the IEEE Transactions on Industrial Informatics.

Topics of interest include but are not limited to:

Power Electronics & Energy Conversion

Power converters, power electronic devices, Sic Mosfet& Sic JFET technologies, modulation techniques, integrated power electronics, modeling, simulation and control of power electronics, DC-DC, DC-AC, AC-DC conversion, AC/AC matrix converters, multilevel converters, fault tolerant converters, high frequency links, soft switching techniques, active rectifiers, inverters, UPS, energy efficiency and storage, power electronics for smart grid, EMI and EMC issues.

Chairs: Chandan Chakraborty, Maria I. Valla, Babak Fahimi, Hao Ma, José Ignacio León Galván

Renewable Energy & Sustainable Development

Wind, solar, and wave energy converters, nano, pico and micro-hydro power generators, integrated renewable systems, hybrid electric vehicles, fuel cells, advanced batteries, energy storage devices and systems, offshore underwater converters, electric transportation, energy harvesting.

Chairs: Josep M. Guerrero, Marco Liserre, Wolfgang Hribernik

Power Systems

Large and small hydro generators, energy transmission and distribution, static VAR and harmonic compensations, FACTs, active and hybrid filtering, power quality devices, power management, modeling, simulation and control of power system, grid interconnection, distributed power generation, diagnostics, smart grid technologies, intelligent control systems, multi-agent systems, global and constrained optimization, electricity market liberalization.

Chairs: Le Xu, Ziang Zhang, Concettina Buccella

Electronic System on Chip & Real Time Embedded Control

Real time simulation algorithms, DSP and FPGA technologies, microprocessor and FPGA based control, real time implementation and control, applications , embedded systems, real-time distributed embedded systems, technologies for system design, electronic system on chip, design methodologies and Electronic Design Automation (EDA) tools.

Chairs: Marcian Cirstea, Eric Monmasson, Marc Perron

Signal and Image Processing & Computational Intelligence

Computer vision, virtual reality systems, industrial vision, virtual instrumentation, image & sound processing, digital signal processing, remote sensing, multimedia applications, neural networks, fuzzy logic, genetic algorithms, industrial applications of intelligent controllers.

Chairs: Milos Manic, Rainer Unland

Electrical Machines & Drives

Special machines and actuators, multiphase motors, AC motor drives control and applications, observers and sensorless methods, electrical machine design and modeling, thermal, noise and vibration issues in electrical machines, reliability, testing and diagnostics, fault detection in machines and drives, motion control, special application of machines and drives, HVAC, advanced traction control of electric vehicles and electric trains, electrical drives for ships and for aerospace. Advance techniques in real and off line simulation of industrial drives power system and electromechanical devices.

Chairs: Leila Parsa, Mario Pacas, Antonio Marques-Cardoso, Christian Kral

Control Systems & Applications

Advanced control techniques, nonlinear and adaptive control, optimal and robust control, estimation and identification techniques, intelligent control, complex systems control, networked control, industrial control applications (e.g. smart grids, renewable energy systems, automotive, aerospace, shipping, biological systems, biomedical engineering, micro/nano systems).

Chairs: Xinghuo Yu (AUSTRALIA), Jiming Chen, Hiroshi Fujimoto

Sensors, Actuators and Systems Integration

Intelligent sensors, actuators and multi-sensor fusion, micro-sensors and micro-actuators, micro-nano technology, electronic instrumentation, micro-electro-mechanical systems (MEMS), systems on chip (SoC), RF systems integratio, integrated optics and related technologies. wireless and wire line communication circuits, polymer electronics.

Chairs: Antonio Luque Estepa, Aleksander Malinowski

Mechatronics & Robotics

Mechatronics systems, robotics, autonomous mobile robots, telerobotics and teleoperation, humanoid robots, multi-robot systems, intelligent transportation, distributed collaborative systems, security & safety applications, human-robot interface, vision-based robots.

Chairs: Roberto Oboe, Kioshi Ohishi, Yousef Ibrahim, Makoto Iwasaki

Factory Automation & Industrial Informatics

Cloud computing, building automation, factory automation and communications, flexible manufacturing systems, industrial vision, motion control, autonomous mobile robots, electrical vehicles, intelligent transportation, industrial agents, integrated systems and processes, distributed collaborative systems, human-machine interfaces, security & safety applications, infrastructures for industrial informatics portable electronics, automation systems for power distribution, industrial applications of internet technologies, multimedia, and wireless communications.

Chairs: Valeriy Vyatkin, Paulo Leitao

Information Processing and Communications

Communication protocols, telecommunication, algorithms, distributed systems, industrial database applications, service oriented architecture, service integration, communication standards, internetworking, mobile communication, information security and trust.

Chairs: Thilo Sauter, Stamatis Karnouskos, Jose Fonseca

Electric and Plug-in Hybrid Electric Vehicles

Automotive power electronics, Automotive motor drives, Battery and other energy storage systems, Ultracapacitors and energy management, Fuel cells for automotive applications. Novel machine designs, EV/PHEV charge control algorithms and strategies, EV/PHEV interface with renewable energy and grid, electric transportation, opportunistic

chargers, slow and fast chargers, wireless charging, communication and control in EVs

Chairs: Sheldon Williamson, Akshay Kumar Rathore, David Dorrell

SPECIAL SESSIONS

The conference will include special sessions on highly specialized topic reporting technical trends and breakthroughs within the scope of the conference. Special sessions are organized at the initiative of one or more individuals, who must adhere to specific procedures published at the conference website.

Chairs: Gerhard P. Hancke, Dietmar Bruckner, Friederich Kupzog, Juan J. Rodriguez-Andina