

IEEE ICIT 2013 CAPE TOWN, SOUTH AFRICA 25 - 27 February 2013



International Conference on Industrial Technology **CALL FOR PAPERS**

Invitation to Participate in an Intellectually Stimulating Summer Conference

Submission of Papers

Prospecting authors are invited to submit full papers (double column, six pages maximum) in English using the online paper submission system located at the conference website www.icit2013.org

Important Dates

Special session proposals:	1 August 2012
Regular paper submissions:	1 September 2012
Notification of acceptance:	1 November 2012
Final manuscript due:	1 December 2012



Pavilion-Clock Tower Conference Centre, Waterfront



Cape Town Waterfront at Sunset



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Conference Tracks: The topics of the conference include, but are not limited to:

Control Systems, Robotics and Mechatronics: Advanced control techniques, nonlinear and adaptive control, optimal and robust control, estimation and identification techniques, intelligent control, neural networks, fuzzy algorithms, evolutionary computing, genetic algorithms, intelligent systems, industrial applications, robotics and mechatronics.
Chairs: Hideki Hashimoto (Japan), Peter Koronidi (Hungary), Jianxin Xu (Singapore), Fernando Camisani Calzolari, (South Africa).

Electrical Machines & Drives: Special machines and actuators, multiphase motors, AC motor drives control and applications, observers and sensorless methods, electrical machine design and modelling, 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.
Chairs: Azeem Khan (South Africa), Aldo Boglietti (Italy), Babak Fahimi (USA).

Power Electronics and Energy Conversion: Power converters, power electronic devices, Sic Mosfet & JFET technologies, PWM converters, integrated power electronics, modelling, simulation and control of power electronics, DC-DC, DCAC, AC-DC conversion, AC/AC matrix converters, multilevel converters, high frequency links, soft switching techniques, active rectifiers, inverters, UPS, energy efficiency, power electronics for smart grid, EMI and EMC.
Chairs: Jose I. Leon (Spain), Francisco Azcondo (Spain), Toit Mouton (South Africa), Udaya Madawala (New Zealand).

Renewable Energy Systems: 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: Mummadi Veerachary (India), Kodjo Agbossou (Canada), Giovanni Spagnuolo (Italy), Ernst Uken (South Africa).

Power Systems and the Smart Grid: 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 connect, distributed power generation, diagnostics, smart grid technologies, intelligent control systems, multi-agent systems, global and constrained optimization.
Chairs: Xinghuo Yu (Australia), Seddik Bacha (France), Edward Chikuni (South Africa), Thomas Strasser (Austria).

Sensors, Actuators and Systems Integration: Intelligent sensors, actuators and multi-sensor fusion - micro-sensors and micro-actuators - micro-nano technology - electronic instrumentation - micro-electromechanical systems (MEMS) - systems on chip (SoC) - RF systems integration - integrated optics and related technologies - wireless and wire line communication circuits, polymer electronics.
Chairs: Seta Bogosyan (USA), Kiyoshi Ohishi (Japan), Stoyan Nihtianov (The Netherlands).

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, VHDL applications, embedded systems, real-time distributed embedded systems, technologies for system design, electronic system on chip, design methodologies and tools.
Chairs: Eric Monmasson (France), Marcian Cirstea (UK), Simon Winberg (South Africa).

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: Fred Nicholls (South Africa), Masanori Akiyoshi (Japan), Gert-Jan van Rooyen (South Africa).

Industrial Automation, Communication & Informatics: cloud computing, building and factory automation and communications, flexible manufacturing systems, industrial vision, motion control, autonomous mobile robots, intelligent transportation, industrial agents, integrated systems and processes, distributed collaborative systems, human-machine interfaces, security & safety applications, infrastructures for industrial informatics portable electronics, industrial applications of internet technologies, multimedia, and wireless communications.
Chairs: Riaan Wolhuter (South Africa), Antoine Bagula (South Africa), Paulo Leitão (Portugal), Armando Colombo (Germany).

Technology Management: Managing technology in the energy, factory, control, information and communication areas. Topics include managing systems of innovation (national and regional sectors), socio technical systems, technology and knowledge management, service and product development, technology transfer, marketing and commercialisation, technology forecasting, technology and business strategies, engineering and technology management in the industrial companies, economic and social impact of technology, enterprise architectures and engineering, systems thinking and complexity, systems dynamics, systems engineering, product development, human factors, service sciences, R&D management.
Chairs: Louwrence Erasmus (South Africa), Michael Condry (USA).

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: Juan José Rodriguez (Spain), Maria I. Valla (USA), Luis Gomes (Portugal).

Industry Forum

Specialized conference sessions hosting speakers from industry to discuss product and technology directions, challenges, and other industry issues with creation, application, and production of products using Industrial Electronics Technologies and necessary computational, communications, and security infrastructures needed to use these technologies. Speakers focus their presentations on technical challenges of interest to the technical audience; there is no written conference publication. Speakers are expected to interact with the conference attendees to discuss industry issues. Admission to the industry forum sessions is complementary for all conference attendees. Details on the Industry Forum including past sessions on the www.iesforum.com and www.ieee-ies.org websites. Please contact the industry forum chairs for additional information:
Chairs: Michael Condry (condry@iee.org), Louwrence Erasmus (louwrence.erasmus@up.ac.za).

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