# **IECON** 2018

## The 44<sup>th</sup> Annual Conference of the IEEE Industrial Electronics Society

October 21 – 23, 2018 Omni Shoreham Hotel, Washington D.C., USA

http://www.iecon2018.org



## **Call for Papers**

IECON 2018 is the 44th Annual Conference of the IEEE Industrial Electronics Society (IES), 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. The main features of the conference include Plenary Speeches, Invited Talks, Regular Sessions, Special Sessions, Tutorials, Industry Forum, Student & Young Professionals Forum.

The world's industry, researchers and academia are cordially invited to participate in a wealth of presentations, tutorials, special sessions, and exhibits, and enjoy the capital city of U.S.



#### **Honorary Chairs**

Bogdan Wilamowski, USA David Irwin, USA Leopoldo Franquelo, Spain Kouhei Ohnishi, Japan

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### Important Due Dates

Special Session Proposals:

March 1, 2018

**Tutorial Proposals:** 

May 1, 2018

Final Paper Submission:

September 7, 2018

Contributed Papers:

May 1, 2018

Notification of Acceptance:

July 15, 2018

Early Registration:

September 7, 2018







#### **Regular Sessions**

The technical topics for the regular sessions include, but are not limited to the topics under the following three major themes:

#### I. ENERGY

#### Power Systems and Smart Grids

Track Chairs: Ramon Blasco-Gimenez (Spain), Peter Palensky (Netherlands), Josep Pou (Singapore), Hao Ma (China)

#### **Electrical Machines and Industrial Drives**

Track Chairs: Leila Parsa (USA), Andrea Cavagnino (Italy), Chris Gerada (UK), Herb Hess (USA)

#### **Power Electronics Converters**

Track Chairs: José Ignacio León Galván (Spain), Yen-Shin Lai (Taiwan), Marcos Alonso (Spain), Miguel Aguirre (Argentina), Brian Johnson (USA)

#### Resilient Control Architectures and Systems for Energy

Track Chairs: Craig Rieger (USA), Ron Boring (USA), Todd Vollmer (USA), Tim McJunkin (USA), Anshul Rege (USA) Renewable Energy and Energy Storage Systems

Track Chairs: Federico Baronti (Italy), Chengbin Ma (China), Nihal Kularatna (New Zealand), Ali Sari (France), Koh Leong Hai (Singapore)

## Transportation Electrification and Automotive Technologies

Track Chairs: Ritesh Keshri (India), Akshay Rathore (Canada)

#### II. CONTROL, MECHATRONICS, ROBOTICS

#### Control Systems and Applications

Track Chairs: Kanghyun Jo (Korea), Makoto Iwasaki (Japan) Mechatronics and Robotics

Track Chairs: Peter Korondi (Hungary), Roberto Oboe (Italy), Yasuharu Kunii (Japan)

Computational Intelligence & Signal and Image Processing

Track Chairs: Shen Yin (China), Kim Fung Tsang (Hong Kong)

#### Sensors, Actuators and Micro-Nanotechnology

Track Chairs: Stoyan Nihtianov (Netherlands), Ridha Ben Mrad (Canada), Yasutaka Fujimoto (Japan), Toshiyaki Tsuji (Japan)

## III. INFORMATION AND COMMUNICATION TECHNOLOGIES

#### Electronic Systems on Chip and Embedded Systems

Track Chairs: Eric Monmasson (France), Marc Perron (Canada), Ray Cheung (Hong Kong)

## Cyber Physical Systems and Internet of Things in Industry

Track Chairs: Yang Shi (Canada), Paulo Leitao (Portugal), Stamatis Karnouskos (Germany), Armando W. Colombo (Germany)

#### Communications for Industrial and Factory Automation

Track Chairs: Thilo Sauter (Austria), Lucia Lo Bello (Italy), Thomas Strasser (Austria)

#### Industrial Electronics and Education

Track Chairs: Seta Bogosyan (USA), Óscar Lucía (Spain), Andreja Rojko (Slovenia), Ahmad Ibrahim (Canada) Cloud Computing, Big Data, Industrial Informatics

Track Chairs: Valeriy Vyatkin (Finland), Ligang Wu (China)

#### **Special Sessions**

The conference will include Special Sessions on highly specialized topic areas 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 on the conference website.

#### **Tutorials**

Informative tutorials will be organized by well-known experts to introduce fundamentals and the state of the art in emerging industrial electronics fields.

#### **Industry Forum**

The Industry Forum focuses on industry directions and use of industrial electronics technologies in processes and products. It also motivates discussion with applications into emerging areas in select areas. For more information, please visit the conference website.

#### Student & Young Professionals Forum

The forum offers activities and opportunities for engineering students and recent graduates (young professionals) to present their R&D work in Industrial Electronics, and to help them develop networking connections.

#### Paper Submissions

Prospective authors are invited to electronically submit full papers in English, 6 pages in length and in pdf format following instructions accessible via http://www.iecon2018.org. Accepted and presented papers will be submitted for inclusion in the IEEE Xplore online digital library and EI Compendex database. In addition, authors of selected papers may be called upon to resubmit extended versions of their papers for consideration of publication in the IEEE Transactions on Industrial Electronics and IEEE Transactions on Industrial Informatics.