## IECON 2018

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

October 21 - Oct. 23, 2018 Omni Shoreham Hotel, Washington D.C., USA http://www.iecon2018.org



**Honorary Chairs** 

David Irwin, USA

**General Chairs** Milos Manic, USA

**Program Chairs** 

Luis Gomes, Portugal

Bogdan Wilamowski, USA

Leopoldo Franquelo, Spain

Kamal Al-Haddad, Canada Mo-Yuen Chow, USA

Kouhei Ohnishi, Japan

# (Preliminary

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 interactions professional 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 participate in a wealth of presentations, tutorials, special sessions, and exhibits, and enjoy the capital city of U.S.



Juan Rodriguez- Andina, Mariusz Malinowski, Poland Qing-Chang Zhong, USA Emil Levi, UK Zhihong Man, Australia

#### SS Chairs:

Kim Man, Hong Kong Antonio Luque, Spain Maria Valla, Argentina Haitham Abu-Rub, Qatar

Treasurer Allen Chen, USA

**Publication Chair:** Andres Nogueiras, Spain

Patronage opportunities Marc Perron, Canada

#### **International Advisory** Board

Ren Luo, Taiwan (Chair) Aldo Bogiletti, Italy Gerard-Andre Capolino, France Carlo Cecati, Italy Huijin Gao, China K. Gopakumar, India Gerhard Hancke, South Africa Hiromasa Haneda, USA Hideki Hashimoto, Japan John Hung, USA Okyay Kaynak, Turkey Marco Liserre, Germany Ren Luo, Taipei Bhim Singh, India Xinghou Yu, Australia

### Important Due Dates

Special Session Proposals:

February 15, 2018

**Tutorial Proposals:** 

May 1, 2018

Final Paper Submission:

August 1, 2018

Contributed Papers:

April 1, 2018

Notification of Acceptance:

June 15, 2018

Early Registration:

August 15, 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

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

• Electrical Machines and Industrial Drives

Leila Parsa (USA), Aldo Boglietti (Italy), Andrea Cavagnino (Italy), Chris Gerada (UK), Herb Hess (USA)

Power Electronics Converters

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

Renewable Energy and Energy Storage Systems
 Federico Baronti (Italy), Chengbin Ma (China), Nihal

Kularatna (New Zealand), Ali Sari (France), Koh Leong Hai (Singapore).

 Transportation Electrification and Automotive Technologies

Ritesh Keshri (India), Akshay Rathore (Canada),

#### II. CONTROL, MECHATRONICS, ROBOTICS

• Control Systems and Applications

Kanghyun Jo (Korea), Makoto Iwasaki (Japan),

Mechatronics and Robotics

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

Computational Intelligence & Signal and image processing

Shen Yin (China), Joel Trussell (USA)

Sensors, Actuators and Micro-Nanotechnology

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
    Eric Monmasson (France), Marc Perron (Canada), Ray
    Cheung (Hong Kong)
  - Cyber Physical Systems and internet of Things in Industry

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

- Communications for industrial and factory automation
  Thilo Sauter (Austria), Lucia Lo Bello (Italy), Thomas
  Strasser (Austria)
- Industrial Electronics And Education
  Seta Bogosyan (USA), Óscar Lucía (Spain), Andreja
  Rojko (Slovenia), Ahmad Ibrahim (Canada)
- Cloud computing, big data, industrial informatics
  Kim Fung Tsang (Hong Kong), 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 pdf format following instructions accessible via <a href="http://www.iecon2018.org">http://www.iecon2018.org</a>. 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

