



October 16-19, 2023



Industrial Electronics Chapter
IEEE Singapore Section



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IECON 2023 is the 49th Annual Conference of the IEEE Industrial Electronics Society (IES), focusing on contemporary industry topics ranging from electronics, controls, manufacturing, to communications and computational intelligence.

IECON is the flagship annual conference of IES and returns to Singapore for the first time after 1988. It aims to create a forum for scientists and practising engineers throughout the world to present the latest research findings and ideas in the areas of Industrial Electronics, and possible contributions toward sustainable development and environment preservation.

Regular sessions within the scope of the following topics, but not limited to:

I. ENERGY

Power Systems and Smart Grids; Electrical Machines and Industrial Drives; Power Electronic Converters; Smart Building Technologies; Renewable Energy and Energy Storage Systems; Transportation Electrification and Automotive Technologies

II. CONTROL, INTELLIGENT SYSTEMS, AND ROBOTICS

Control Systems and Applications; Machine Learning & Signal and Image Processing; Mechatronics and Robotics; Sensors, Actuators and Micro-Nanotechnology; Resilience and Security for Industrial Applications; Smart Manufacturing Technologies; Unmanned Systems.

III. INFORMATION AND COMMUNICATION TECHNOLOGIES

Electronic Systems on Chip and Embedded Systems; Cyber Physical Systems and Internet of Things in Industry; Communications for Industrial and Factory Automation; Industrial Electronics and Education; Cloud Computing, Big Data, Industrial Informatics

Special sessions: Special sessions covers subjects or cross-subjects belonging to the topics of interest, or novel topics related with the ones identified within the topics of interest.

Submission of Papers

The working language of the conference is English. Prospective participants are requested to electronically submit full papers of their work to <https://confcomm.ieee-ies.org/>. Accepted, registered, and presented papers will be IEEE copyrighted and published in the conference proceedings. The proceedings is planned to be submitted for inclusion in IEEE Xplore® Digital Library and therefore indexed by EI Compendex. In order for the accepted paper to be submitted for inclusion into the IEEE Xplore® Digital Library, all of the following requirements must be satisfied: 1. Appropriate publication materials: final paper and transfer of copyright to IEEE must be submitted. 2. At least one full registration has to be paid. 3. The paper must be presented at the conference.

Important Dates:

Deadline for submission of regular papers
Deadline for submission of special session papers
Notification of acceptance
Deadline for submission of camera-ready manuscripts
Deadline for author registration

April 30, 2023
May 31, 2023
July 01, 2023
July 31, 2023
July 31, 2023



Supported by



Held in



Regular Sessions

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

ENERGY

TPC Chairs: Akshay Kumar Rathore, Cungang HU

Power Systems and Smart Grids

Fanghong Guo (China), Hao Ma (China), Stanimir Valtchev (Portugal), Yan Xu (Singapore), Hung Dinh Nguyen (Singapore), Tan Kuan Tak (Singapore), Nian Liu (China), Jing Ma (China), Yiqi Liu (China), Dipti Saxena (India), Paolo Fracas (Portugal), Peter Palensky (Netherlands), Pierluigi Siano (Italy)

Electrical Machines and Industrial Drives

Andrea Cavagnino (Italy), Giulio De Donato (Italy), David Gerada (UK), Christopher H. T. Lee (Singapore), Antonio Marques-Cardoso (Portugal), Xinan Zhang (Australia), Amarendra Edpuganti (India), Pinjia Zhang (China), Zhonggang Yin (China), Shaopeng Wu (China)

Power Electronic Converters

Sertac Bayhan (Qatar), Moumita Das (India), Amer M. Y. M. Ghias (Singapore), Sudharshan Kaarthik (India), Georgios Konstantinou (Australia), Vitor Pires (Portugal), Enrique Romero-Cadaval (Spain), Yi Tang (Singapore), Jack Xin Zhang (China), Pradyumn Chaturvedi (India), Mohamed Dahidah (UK), Zhenbin Zhang (China), Wu Chen (China), Xiaoqiang Guo (China),

Smart Building Technologies

Jan Haase (Germany), Jingjing Huang (China), Sivaneasan Bala Krishnan (Singapore), Dhivya Sampath Kumar (Singapore)

Renewable Energy and Energy Storage Systems

Federico Baronti (Italy), Leong Hai Koh (Singapore), Chengbin Ma (China), Thomas Strasser (Austria), Sergio Vazquez (Spain), Sunanda Sinha (India), Yanhu Zhang (China), Mingyao Ma (China), Mohammad Shadmand (USA)

Transportation Electrification and Automotive Technologies

Fei Gao (France), Suwendu Samanta (India), Satish Naik (India), Adolfo Senatore (Italy), Elsa Feng Xue (Singapore), Elsa Feng Xue (Singapore), Zedong Zheng (China)

CONTROL, INTELLIGENT SYSTEMS, AND ROBOTICS

TPC Chairs: Jingbing Zhang, Guanghong Yang

Control Systems and Applications

Radu-Emil PRECUP (Romania), Gayan Kahandawa Appuhamillage (Australia), Panlong Tan (China), Thomas Strasser (Austria), Chao Deng (China), Guodong Shi (Australia), Ramon Guzmán (Spain), Mickael Hilairet (France), Hasan Komurcugil (Turkey), Yajun Pan (Canada), Jun Yang (UK)

Machine Learning & Signal and Image Processing

Kezhi Mao (Singapore), Haiyan Shu (Singapore), Gabor Sziebig (Norway)

Mechatronics and Robotics

Mi Zhang (China), Zhen Xie (Singapore), Mingyang Guan (Singapore), Mao Shan (Australia), Seiichiro Katsura (Japan), Pey Yuen Tao (Singapore), Yasutaka Fujimoto (Japan), Dimitri Ognibene (Italy)

Sensors, Actuators and Micro-Nanotechnology

Carmen Aracil (Spain), Qingsong Xu (Macao, China)

Resilience and Security for Industrial Applications

Bo Chen (China), Mikael Gidlund (Sweden), Nuno Pereira (Portugal), Liwei An (China)

Smart Manufacturing Technologies

Guanghui Zhang (China), Rong Su (Singapore)

Unmanned Systems

Wen-Hua Chen (UK), Xiwang Dong (China), Anyang Lu (China)

INFORMATION AND COMMUNICATION TECHNOLOGIES

TPC Chairs: Zhengguo Li, Jing Zhou

Electronic System on Chip and Embedded Systems

Ray Cheung (Hongkong, China), Linga Reddy Cenkeramaddi (Norway)

Cyber-Physical Systems and Internet of Things

Houxiang Zhang (Norway), Chenguang Yang (UK), Yangming Guo (China)

Communications for Industrial and Factory Automation

Lei Jiao (Norway), Chen-Wei Yang (Sweden)

Industrial Electronics and Education

Bilal Ahmad (UK), Wenbin Dai (China)

Cloud Computing, Big Data, and Industrial Informatics

Paulo Leitao (Portugal), Kim Fung Tsang (Hongkong, China), Chaobing Zheng (China), Keyu Wu (Singapore), Daswin De Silva (Australia), Weide Liu (Singapore)

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 Activities

The S&YP Activities offers 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 IES S&YP can take a part in a competition for the IES-S&YP Paper Assistance during submission process. For more details, please visit IES electronics channels.

IES Women in Engineering Forum

The Second IES Women in Engineering Forum will host invited speeches, a break to mingle with the attendees and favor networking, and a panel discussion at the end. The aim of the Forum is to foster women's involvement in scientific and technical activities, but it is not intended for women only. Professionals and students, regardless of gender, are welcome to network in a relaxed atmosphere.



Contact:

IECON 2023 Secretariat

URL: <https://www.iecon2023.org>

Email: iecon2023@iecon2023.org