

# The 27<sup>th</sup> IEEE International Symposium on Industrial Electronics 12–15 June 2018, Cairns, Australia



## Honorary Chairs

Ren Luo (Taiwan)  
Kouhei Ohnishi (Japan)  
Kamal Al-Haddad (Canada)

## General Chair

Qing-Long Han (Australia)

## General Co-Chairs

Xinghuo Yu (Australia)  
Mohan Jacob (Australia)

## Program Chair

Yousef Ibrahim (Australia)

## Technical Program Co-Chairs

Eric Monmasson (France)  
Antonio Luque (Spain)  
Huijun Gao (China)

## Special Sessions Chairs

Mo-Yuen Chow (USA)  
Yang Shi (Canada)  
Maria Valla (Argentina)  
Marcjan Cirstea (UK)  
Hadi Kanaan (Lebanon)

## Publication Committee

Qing-Long Han (Australia)  
Andrés Nogueiras (Spain)  
Mohan Jacob (Australia)  
Daswin de Silva (Australia)

## Student & Young

## Professionals (S&YP) Forum

## Co-Chairs:

Marek Jasinski (Norway)  
Samir Kouro (Chile)  
Dimritri Vinnikov (Estonia)

## Important Dates:

### Special Session

Proposals: **15 Dec 2017**

Full Paper Submission:

**Extended to 31 Jan 2018**

Acceptance Notification:

**15 Mar 2018**

Final Submission of full

manuscript: **15 Apr 2018**

Early Bird Registration:

**15 Apr 2018**

## Conference website:

[www.ieee-isie2018.org](http://www.ieee-isie2018.org)

email: [info@ieee-isie2018.org](mailto:info@ieee-isie2018.org)

## Technical Co-Sponsors:

IEEE Northern Australia Section  
IEEE OES, Australia



Full papers are requested to be submitted for peer review.  
The topics of this conference will include, but are not limited

## Technical Tracks

### Power Systems and Smart Grids

Power Systems, Transmission, Power Quality, Utility Applications, Smart Grids  
*Pierluigi Siano (Italy), Stanimir Valtchev (Portugal), Tapan Saha (Australia), Peter Palensky (Ne*

### Electrical Machines and Industrial Drives

AC/DC Motor Drives, Electrical Machines Design/Modelling, Thermal/Vibrations Issues  
*Franck Betin (France), Andrea Cavagnino (Italy), Leila Parsa (USA), Jianguo Zhu (Australia)*

### Control Systems and Applications

Control Systems, Sensor-less and Predictive Control, Data Driven control and Monitoring  
*Huijun Gao (China), Xinkai Chen (Japan), Yang Shi (Canada), Zhenwei Cao (Australia), Yu-Long Wang (China)*

### Power Electronics and Energy Conversion

Power Electronics Modelling, Simulation, Design, Control, DC/DC Conversion, AC/AC Converters, Rectifiers, Inverters, PWM Systems  
*Seddik Bacha (France), Chandan Chakraborty (India), Dong Yue (China), Haitham Abu-Rub (Qatar), Firuz Zare (Australia)*

### Renewable Electric Energy Conversion, Processing and Storage

Wind Energy, Photovoltaics, Hydro-Power, Energy Storage and Battery Technologies, Fuel Cells,  
*Carlo Cecati (Italy), Fuwen Yang (Australia), Minrui Fei (China)*

### Mechatronics and Robotics

Mechatronics, Robotics, Human-Machine Interface Technology, Control of Linear and Nonlinear Systems, Adaptive, Robust and Variable Structure Control  
*Kiyoshi Ohishi (Japan), Peter Korondi (Hungary), Toshiyuki Murakami (Japan), Kang-Hyun Jo (South Korea)*

### Distributed and Networked Control Systems

Distributed Event-Triggered Filtering and Control, Communication Protocol and Control, Distributed Network-Based Leader-Following Consensus, Network-Based Tracking Control, Sampled-Data Control and Filtering  
*Xian-Ming Zhang (Australia), Shen Yin (China), Chen Peng (China), Baolin Zhang (China)*

### Industrial Informatics and Cloud Computing

Industrial Control and Computing Paradigms, Artificial Intelligence Applications, Industrial Network Design, Cloud Computing, Cyber and Network Security  
*Kim Fung Tsang (Hong Kong), Paulo Leitao (Portugal), Thomas Strasser (Austria), Eric Monmasson (France), Elizabeth Chang (Australia).*

### Factory Automation, Cyber-Physical Systems and Internet of Things (IoT)

Remote Sensing, Process Automation, Flexible Manufacturing Systems, Industrial Agents, Factory Automation, Safety and Reliability, Internet of Things  
*Thilo Sauter (Austria), Armando Walter Colombo (Germany), Lucia Lo Bello (Italy), Gour karmakar (Australia), Wei Xiang (Australia)*

### Signal Processing and Artificial Intelligence

Computer Vision, Virtual Reality Systems, Image & Sound Processing, Digital Signal Processing, Remote Sensing, Multimedia Applications, Artificial Neural Networks, Fuzzy Logic, Genetic Algorithms, Industrial Applications.  
*Kang-Hyun Jo (South Korea), Shyh Wei Teng (Australia), Xiaohua Ge (Australia), Yu-Chu Tian (Australia), Wangli He (China)*

### Sensors, Actuators Micro-/Nanotechnology and Graphene

Sensors, Signal/ Audio / Video Applications, Networking Applications, Communication Systems, Measurements & Data Acquisition, Nanoelectronics, MEMs, Graphene Devices  
*Yasutaka Fujimoto (Japan), Antonio Luque (Spain), Aleksander Malinowski (USA)*

### Automotive Technology

Electric Propulsion, Automotive Applications, Electric and Hybrid Electric Vehicles.  
*Jan Haase (Austria), Victor Huang (USA), Joem Ploennigs (Ireland)*

### Systems Reliability, Conditions Monitoring and Fault Diagnosis

System's Reliability testing and Risk Analysis, Fault Diagnostic and Recovery, FMECA, FTA,  
*Makota Iwasaki (Japan), Steve Wilcox (Australia)*

### Engineering Education

Educational Tools, Continuous Learning, Educational Materials and Methods, Distance Learning, Information and Communication Technologies in Laboratories, University-Industry Collaboration  
*Andreja Rojko (Germany), Yen-Shin Lai (Taiwan), Oscar Lucia (Spain)*

### Marine Electronics

*Mal Heron (Australia), Melanie Olsen (Australia), Kevin Sharp (USA)*



The ISIE conference will include Special Sessions on highly specialised topics, within the scope of the conference theme. Contact a Special Session's Co-Chair to organise a Special Session.

**ISIE 2018 Cairns, AUSTRALIA: June 12-15, 2018**

**Post and Pre Conference Tours**



There will be many pre and post conference tours available to explore the only place in the world where two World Heritage-listed sites exist side by side. Some key attractions are:

**The Great Barrier Reef:** The 2,300km-long ecosystem comprises thousands of reefs (countless species of colourful fish, molluscs and starfish, turtles, dolphins and sharks) and hundreds of islands made of over 600 types of hard and soft coral. From the comfort of the stable reef activity platform, this is the perfect base for swimmers and non-swimmers to explore. Snorkel and dive, visit the underwater observatory and cruise in a semi-sub, or just relax on the sundeck.



**Daintree National Park** - natural beauty (<http://www.destinationdaintree.com>)

Ancient tropical rainforests of Daintree National Park, the magnificent Daintree River, and awesome coastal ranges overlook the calm clear waters of The Great Barrier Reef.



**Scenic Railway and Skyrail** runs between Cairns and the nearby Town Kuranda connecting the Barron Gorge National Park in the Wet Tropics of Queensland's World Heritage Area.



**Aboriginal Australian Indigenous Cultural Experience** (<http://www.tjapukai.com.au>)



**Hot Air Balloon and Sky Dive**

