IESES 2023
Shanghai, China  July 26-28, 2023
The 3rd IEEE International Conference on Industrial Electronics for Sustainable Energy Systems

CONFERENCE PROGRAM

This Program Booklet may change slightly before the conference to accommodate the conference program needs and logistics.
WELCOME MESSAGE

Dear Colleagues,

A warmest welcome to all students, academic scholars, faculty members, and industry experts to the 3rd IEEE International Conference on Industrial Electronics for Sustainable Energy Systems (IESES). IESES 2023 will be held in Shanghai City, China from July 26-28, 2023. Shanghai is China's biggest city, a major industrial, financial and fashion center in China, and a global financial and innovation hub.

The goal of IESES 2023 is to provide an open and inspiring multidisciplinary platform to exchange innovative ideas, solutions and results in sustainable energy systems. Shanghai has many leading research institutes and companies in the field of energy storage and sustainable energy. Taking this advantage, in addition to regular academic events, IESES 2023 will organize industrial events with keynote speeches, panels, company tours, and also hold a banquet on Shanghai Huangpu River night cruise.

We sincerely hope that the interactive multidisciplinary environment provided by IESES 2023 will benefit all our participants to exchange and learn about the cutting-edge developments in related Industrial Electronics technologies, such as energy storage and conversion, power electronics, renewable energies, power systems, transportation electrification.

We look forward to welcoming you at IESES 2023, and wish you an unforgettable stay in Shanghai.

Best regards,

Chengbin Ma
Mo-Yuen Chow
Chandan Chakraborty

General Chairs, IEEE IESES 2023
## ORGANIZING COMMITTEES

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- Juan Jose Rodriguez-Andina (ESP)
- Jun Ni (CHN)

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- Giampaolo Buticchi (ITA)

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- Kim Fung Man (CHN)

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- Bharat Balagopal (USA)

### LOCAL ARRANGEMENTS CHAIRS
- Miao Zhu (CHN)
- Wenbin Dai (CHN)
- Tianzhen Wang (CHN)
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<thead>
<tr>
<th>TRACK CHAIRS</th>
<th>SPECIAL SESSION CHAIRS</th>
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<tbody>
<tr>
<td>Chandan Kumar</td>
<td>Chengbin Ma</td>
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<td>Chong Han</td>
<td>Jianwei Mai</td>
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<td>Cong-Sheng Huang</td>
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<td>Yang Chen</td>
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<td>Hao Ma</td>
<td>Yoichi Hori</td>
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<td>Hengzhao Yang</td>
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<td>Zhaojian Wang</td>
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<td>Zhengkai Li</td>
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**LOCATION**

**HOST CITY**
Shanghai, China

Shanghai, the vibrant metropolis of China, is a captivating destination for international tourists. This city seamlessly blends modernity with rich cultural heritage, offering a kaleidoscope of experiences for visitors to indulge in. Marvel at the iconic skyline adorned by towering skyscrapers, including the magnificent Shanghai Tower and the historic Bund waterfront. Immerse yourself in the city’s thriving art and entertainment scene, with world-class theaters, galleries, and music venues scattered across the city. Indulge in Shanghai’s delectable culinary delights, from mouthwatering street food to upscale international cuisine. Explore the traditional neighborhoods of the Old City, where ancient temples and tranquil gardens offer a glimpse into Shanghai’s storied past. For shopping enthusiasts, the city boasts an array of shopping districts, from high-end fashion boutiques to bustling local markets. Shanghai’s efficient transportation network makes it easy to explore the city’s diverse neighborhoods and nearby attractions. With its dynamic energy and unique blend of old and new, Shanghai promises an unforgettable adventure for international tourists seeking an authentic Chinese experience.
LOCATION

VENUE
Howard Johnson Leonora Plaza Shanghai

A warm welcome awaits you at the Howard Johnson Leonora Plaza Shanghai, giving a new meaning to comfort and style. Situated in the heart of Shanghai’s Jinqiao Export Processing zone, only ten minutes from the Shanghai International Expo Center, the Howard Johnson Leonora Plaza Shanghai offers a first-class retreat for business or leisure travelers. Within easy reach of the city’s major tourist attractions and just 30 minutes from Pudong and 45 minutes from Hongqiao Airport, the hotel serves as an ideal location to explore Shanghai.

No.99 Jinxin Road, Pudong New Area, Shanghai, 201206, China

WIFI
Name: HOJO-BALLROOM
Password: meet123

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Scan to View the Conference Photos
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<th>Time</th>
<th>Conference Room 1</th>
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<td>8:00 – 8:30</td>
<td>Registration</td>
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<tr>
<td>8:30 – 9:00</td>
<td><strong>Tutorial 1</strong>&lt;br&gt;AI Driven Offshore Wind Farm Management&lt;br&gt;<strong>Speaker:</strong> Junyong You&lt;br&gt;<strong>Chair:</strong> Chengbin Ma</td>
<td><strong>Tutorial 2</strong>&lt;br&gt;Supercapacitor Assisted (SCA) Techniques for Power Converters and Protection Systems&lt;br&gt;<strong>Speaker:</strong> Nihal Kularatna&lt;br&gt;<strong>Chair:</strong> Mo-Yuen Chow</td>
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<td>9:00 – 9:30</td>
<td><strong>Tutorial 2</strong>&lt;br&gt;Supercapacitor Assisted (SCA) Techniques for Power Converters and Protection Systems&lt;br&gt;<strong>Speaker:</strong> Nihal Kularatna&lt;br&gt;<strong>Chair:</strong> Mo-Yuen Chow</td>
<td><strong>Tutorial 3</strong>&lt;br&gt;Second-Life EV Batteries for Renewable and Smart Grid Storage Applications&lt;br&gt;<strong>Speaker:</strong> Chris Mi&lt;br&gt;<strong>Chair:</strong> Liu Ming</td>
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<td>10:00 – 10:30</td>
<td>(Break: 10:00-10:15)&lt;br&gt;<strong>Tutorial 3</strong>&lt;br&gt;Second-Life EV Batteries for Renewable and Smart Grid Storage Applications&lt;br&gt;<strong>Speaker:</strong> Chris Mi&lt;br&gt;<strong>Chair:</strong> Liu Ming</td>
<td>(Break: 10:00-10:15)&lt;br&gt;<strong>Tutorial 4</strong>&lt;br&gt;Super Capacitor Energy Storage Technology for Urban Rail Transit&lt;br&gt;<strong>Speaker:</strong> Zhongping Yang, Fei Lin, Zhihong Zhong&lt;br&gt;<strong>Chair:</strong> Wei Liu</td>
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<td>11:00 – 11:30</td>
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<td>11:30 – 12:00</td>
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<td>12:00 – 13:00</td>
<td>Lunch&lt;br&gt;Haosheng Cafe, 1st Floor</td>
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<td>13:00 – 13:30</td>
<td><strong>SS1-Academia</strong>&lt;br&gt;SCAP, DWPT and WIWM for Sustainable Society&lt;br&gt;<strong>Chair:</strong> Yoichi Hori</td>
<td><strong>T1</strong>&lt;br&gt;Energy Storage Devices and Management&lt;br&gt;<strong>Chair:</strong> Hengzhao Yang, Cong-Sheng Huang</td>
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<td>13:30 – 14:00</td>
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<td>15:00 – 15:30</td>
<td>(Break: 15:00-15:15)&lt;br&gt;<strong>SS1-Industry</strong>&lt;br&gt;SCAP, DWPT and WIWM for Sustainable Society&lt;br&gt;<strong>Chair:</strong> Kazuhiro Sakuma</td>
<td>(Break: 14:30-14:45)&lt;br&gt;<strong>T2</strong>&lt;br&gt;Smart Buildings and Communities&lt;br&gt;<strong>Chair:</strong> Paulo Bartolomeu, Shaofang Gong</td>
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<td>15:30 – 16:00</td>
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<td>18:00 – 19:30</td>
<td><strong>Evening Reception</strong>&lt;br&gt;Haosheng Cafe, 1st Floor</td>
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# AGENDA | Thursday, July 27th

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<th>Time</th>
<th>Hall A</th>
<th>Conference Room 1</th>
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<tr>
<td>8:20 – 8:30</td>
<td><strong>Welcome Speech</strong></td>
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<td><strong>Speaker:</strong> Chengbin Ma</td>
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<td>8:30 – 9:00</td>
<td><strong>Keynote 1</strong></td>
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<td><strong>IoT Sensor Integration in Smart Buildings</strong></td>
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<td><strong>for Climate Sustainability</strong></td>
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<td><strong>Chair:</strong> Mo-Yuen Chow</td>
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<td><strong>Speaker:</strong> Saifur Rahman</td>
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<td>9:30 – 10:00</td>
<td><em>(Break: 9:30-9:45)</em> <strong>Industrial Forum</strong></td>
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<td>10:00 – 10:30</td>
<td><strong>The Twin Green &amp; Digital Transition</strong></td>
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<td>10:30 – 11:00</td>
<td><strong>Speaker:</strong> Yingliang Ji, Yi Feng, Jinlei Meng, Haitao Wang</td>
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<td><strong>Chair:</strong> Zhibo Pang</td>
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<td><strong>Lunch</strong></td>
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<td><strong>Haosheng Cafe, 1st Floor</strong></td>
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<td>13:00 – 13:30</td>
<td><strong>SS2</strong></td>
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<td><strong>Advanced Wireless Power Transfer System</strong></td>
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<td><strong>with Wide Operating Range</strong></td>
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<td><strong>Chair:</strong> Jianwei Mai, Xiaofei Li</td>
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<td>13:30 – 14:00</td>
<td><strong>T3-I</strong></td>
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<td><strong>Power Converter</strong></td>
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<td><strong>Chair:</strong> Tianzhan Wang, Jia Yao</td>
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<td>14:00 – 14:30</td>
<td><strong>T4</strong></td>
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<td><strong>Microgrids and Smart Grids</strong></td>
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<td><strong>Chair:</strong> Renke Huang, Yiyan Li</td>
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<td>14:30 – 15:00</td>
<td><em>(Break: 14:30-14:45)</em> <strong>T3-II</strong></td>
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<td><strong>Power Converter</strong></td>
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<td><strong>Chair:</strong> Minfan Fu, Yuyu Geng</td>
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<td>15:00 – 15:30</td>
<td><em>(Break: 14:30-14:45)</em> <strong>T3-III</strong></td>
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<td><strong>Power Converter</strong></td>
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<td><strong>Chair:</strong> Hao Ma, Ming Liu</td>
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<td>15:30 – 16:00</td>
<td><em>(Break: 14:15-14:45)</em> <strong>SS3-I</strong></td>
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<td><strong>Regenerative Energy Utilization in Traction</strong></td>
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<td><strong>Power Supply System</strong></td>
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<td><strong>Chair:</strong> Wei Liu, Zhongping Yang</td>
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<td>13:00 – 16:30</td>
<td><strong>Company Tour</strong></td>
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<td><em>(Fuel cell and Battery Assembly Lines)</em></td>
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<td>17:30 – 21:00</td>
<td><strong>Banquet</strong></td>
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<td><em>(Shanghai Huangpu River Night Cruise with Buffet Dinner)</em></td>
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<td>Time</td>
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<td>8:30 – 9:00</td>
<td><strong>Keynote 2</strong>&lt;br&gt;GIFT’s Sustainable Energy Program and University-Industry Collaboration with CATL&lt;br&gt;&lt;br&gt;<strong>Speaker:</strong> Jun Ni&lt;br&gt;<strong>Chair:</strong> Minfan Fu</td>
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<td>9:30 – 10:00</td>
<td>(Break: 9:30-9:45) T5 Al-based technologies for sustainable energy applications&lt;br&gt;&lt;br&gt;<strong>Chair:</strong> Zhuming Bi, Yiyan Li</td>
<td>(Break: 9:30-9:45) T6 Renewable Energy Systems&lt;br&gt;&lt;br&gt;<strong>Chair:</strong> Hao Luo, Zhongfu Zhou</td>
<td>(Break: 9:30-9:45) SS3-II Regenerative Energy Utilization in Traction Power Supply System&lt;br&gt;&lt;br&gt;<strong>Chair:</strong> Zhihong Zhong, Jian Zhang</td>
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<td>Lunch&lt;br&gt;Haosheng Cafe, 1st Floor</td>
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<td>13:00 – 16:30</td>
<td>Company Tour (EV Technical Exhibition Center) Farewell Party</td>
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VENUE MAP

Howard Johnson Leonora Plaza Shanghai, 3rd Floor

Hall A
July 27-28

Conference Room 1
July 26-28

Conference Room 2
July 26-28

Ladies' Room

Men's Room

Elevator
DETAILED SCHEDULE | Wednesday, July 26th

Conference Room 1

08:30 – 10:00 | Conference Room 1
Tutorial 1: AI Driven Offshore Wind Farm Management
Speaker: Junyong You, Norwegian Research Center
Chair: Chengbin Ma, Shanghai Jiao Tong University

10:00 – 10:15 | Coffee Break

10:15 – 11:45 | Conference Room 1
Tutorial 3: Second-Life EV Batteries for Renewable and Smart Grid Storage Applications
Speaker: Chris Mi, San Diego State University
Chair: Liu Ming, Shanghai Jiao Tong University

12:00 – 13:00 | Lunch
Haosheng Cafe, 1st Floor

13:00 – 15:00 | Conference Room 1
SS1-Academia: SCAP, DWPT and WIWM for Sustainable Society
Chair: Yoichi Hori, Tokyo University of Science
[1] ISESE23-000029: Supercapacitors with Polymer Electrolyte and Shochu Waste as Carbon Electrode
Daisuke Tashima, Tomi Ryu, Fukuoka Institute of Technology
[2] ISESE23-000039: Graphene Composite for Supercapacitor and Battery Applications
Run-Sheng Gao, Jie Tang, National Institute for Materials Science; Lu-Chang Qin, Department of Physics and Astronomy, University of North Carolina at Chapel Hill
Yukio YOKOI, Takushoku University

15:00 – 15:15 | Coffee Break

15:15 – 17:15 | Conference Room 1
SS1-Industry: SCAP, DWPT and WIWM for Sustainable Society
Chair: Kazuhiro Sakuma, Capacitors Forum (Japan)
Kazuhiro Sakuma, Capacitors Forum (Japan)
[2] High Heat-resistant Lithium-ion Capacitor and Applications
Takumi Mio, et.al., JTEKT Corp. *REMOTE
Kenji Tamamitsu, et.al., Nippon Chemi-Con Corp. *REMOTE
Takuma Kuroda and Hirotomo Nishihara, 3DC Inc.
DETAILED SCHEDULE | Wednesday, July 26th

Conference Room 1

Ryuichi Sasaki, Marubeni Corp.

Kazuhito Kishi, RICOH Corp. *REMOTE

Tetsuya Takahashi, HIOKI E.E. Corp.

[8] Efforts of DWPT System Development at DAIHEN
Yoshinori Tsuruda, DAIHEN Corp. *REMOTE

18:00 – 19:30 | Evening Reception
Haosheng Cafe, 1st Floor

Conference Room 2

08:30 – 10:00 | Conference Room 2
Tutorial 2: Supercapacitor Assisted (SCA) Techniques for Power Converters and Protection Systems
Speaker: Nihal Kularatna, The University of Waikato
Chair: Mo-Yuen Chow, Shanghai Jiao Tong University

10:00 – 10:15 | Coffee Break

10:15 – 11:45 | Conference Room 2
Tutorial 4: Super Capacitor Energy Storage Technology for Urban Rail Transit
Speaker: Zhongping Yang, Fei Lin, Zhihong Zhong, Beijing Jiaotong University
Chair: Wei Liu, Southwest Jiaotong University

12:00 – 13:00 | Lunch
Haosheng Cafe, 1st Floor

13:00 – 14:30 | Conference Room 2
T1: Energy Storage Devices and Management
Chair: Hengzhao Yang, ShanghaiTech University; Cong-Sheng Huang, National Taipei University of Technology

Yinyao Zhang, Lei Dong, Beijing Institute of Technology; Geng Yang, Tsinghua University; Jiao Jiao Li, University of Technology Sydney; Baoji Wang, Gree Altairnano New Energy INC

Chamara Dassanayake, Nihal Kularatna, Alistair Steyn-Ross, University of Waikato; Kosala Gunawardane, Auckland University of Technology; Nicolo Gurusinghe, Sri Lanka Technological Campus

Luca Crocetti, Roberto Di Rienzo, Alessandro Verani, Federico Baronti, Roberto Roncella, ROBERTO SALETTI, University of Pisa

Jilun Tian, Zhang Jiusi, Yuchen Jiang, Hao Luo, Harbin Institute of Technology; Congsheng Huang, National Taipei University of Technology; Mo-yuen Chow, North Carolina State University
DETAILED SCHEDULE | Wednesday, July 26th

Conference Room 2

Zhang Jiusi, Jilun Tian, Yuchen Jiang, Hao Luo, Harbin Institute of Technology; Congsheng Huang, National Taipei University of Technology; Mo-yuen Chow, North Carolina State University; Shen Yin, Norwegian University of Science and Technology

14:30 – 14:45 | Coffee Break

14:45 – 16:00 | Conference Room 2
T2: Smart Buildings and Communities
Chair: Paulo Bartolomeu, University of Aveiro; Shaofang Gong, Linköping University

Zijie Chen, Yiming Gao, and Junrui Liang, ShanghaiTech University

Tianxiang Xia, South China University of Technology

Zhongjun Ni, Magnus Karlsson, Shaofang Gong, Linköping University; Chi Zhang, University of Gothenburg

Miguel Matos, Paulo Bartolomeu, João Almeida, Pedro Gonçalves, Instituto de Telecomunicações; Fabiano Baldo, Universidade do Estado de Santa Catarina; Fernando Braz, Instituto Federal Catarinense

18:00 – 19:30 | Evening Reception
Haosheng Cafe, 1st Floor

[6] IESES23-000049: A P-value Approach for Real-time Identifying the Capacity Regeneration Phenomenon of Lithium-ion Batteries
Jeff Dunn, Cong-Sheng Huang, National Taipei University of Technology
8:20 – 8:30 | Hall A  
**Welcome Speech**  
Speaker: Chengbin Ma, Shanghai Jiao Tong University

08:30 – 09:30 | Hall A  
**Keynote 1: IoT Sensor Integration in Smart Buildings for Climate Sustainability**  
Speaker: Saifur Rahman, Virginia Tech & IEEE  
Chair: Mo-Yuen Chow, Shanghai Jiao Tong University

09:30 – 09:45 | Coffee Break

09:45 – 12:00 | Hall A  
**Industrial Forum: The Twin Green & Digital Transition**  
Speaker: Yingliang Ji, Pan Asia Technical Automotive Center; Yi Feng, Cheeco New Energy; Jinlei Meng, ABB; Haitao Wang, Intel.  
Chair: Zhibo Pang, ABB & KTH Sweden

12:00 – 13:00 | Lunch  
Haosheng Cafe, 1st Floor

13:00 – 14:30 | Hall A  
**SS2: Advanced Wireless Power Transfer System with Wide Operating Range**  
Chair: Jianwei Mai, Harbin Institute of Technology; Xiaofei Li, Chongqing University  
Kunxiao Zhou, Guangdong Ning, Minfan Fu, ShanghaiTech University  
Zhichao Sun, Yijie Wang, Tao Li, Jianwei Mai, Ming Zeng, Dianguo Xu, Harbin Institute of Technology

14:30 – 14:45 | Coffee Break

14:45 – 16:00 | Hall A  
**T3-II: Power Converter**  
Chair: Minfan Fu, ShanghaiTech University; Yuyu Geng, Chongqing University of Technology  
Chen Li, Jianzhong Wu, Ying Liu, Cardiff University; Ingo Lüdtke, CSA Catapult; Wenlong Ming, Cardiff University  
Siyi Yao, School of Information Science and Technology; Minfan Fu, ShanghaiTech University; Zhongchang Li, Xinlin Wang, School of Information Science and Technology, ShanghaiTech University
DETAILED SCHEDULE | Thursday, July 27th

Hall A

Muyu Chen, Zhige Yuan, Amer M. Y. M. Ghias, Nanyang Technological University; Faramarz Faraji, Honnyong Cha, Kyungpook National University

[4] IESES23-000036: An energy control strategy in hybrid electric ships considering the battery life
Yan yucheng, Gao Diju, Jiang Haoyang

Ao Yang, Yijie Wang, Jianwei Mai, Dianguo Xu, Harbin Institute of Technology

Conference Room 1

13:00 – 14:30 | Conference Room 1
T3-I: Power Converter
Chair: Tianzhan Wang, Shanghai Maritime University; Jia Yao, Nanjing University of Science and Technology

Wei Chen, NARI Group Corporation / School of Electrical and Automation Engineering, Nanjing Normal University; Shaoze Zhou, Xinzhe Song, Zheng Wei, Dongmei Yang, Wei Wang, NARI Group Corporation (State Grid Electric Power Research Institute)

Zhanghao Chen, Junming Zhang, Shuai Shao, Zhejiang University

Zhige Yuan, Amer Mohammad Yusuf Mohammad Ghias, Nanyang Technological University; Faramarz Faraji, Honnyong Cha, Kyungpook National University

Xiang Gao, Yifan Jiang, Heyuan Li, Minfan Fu, ShanghaiTech University

Bin Luo, Guagnzhao Luo, Sihai Li, School of Automation, Northwestern Polytechnical University; Youhua Zeng, AVIC Beijing ShuGuang Aviation electric Co., Ltd

Jinlei Chen, Wenlong Ming, Sheng Wang, Jun Liang, Cardiff University; Ingo Lüdtke, CSA Catapult

14:30 – 14:45 | Coffee Break
# Detailed Schedule | Thursday, July 27th

## Conference Room 1

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<td><strong>T3-III: Power Converter</strong></td>
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<td>Chair: Hao Ma, Zhejiang University; Ming Liu, Shanghai Jiao Tong University</td>
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<tr>
<td></td>
<td>[1] IESES23-000053: Adaptive Inertia Based on Secondary Control Strategy for VSGs with the SOC Constraint of DC-Side Energy Storage</td>
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<td>Xiaofeng Ren, Wei Hao, Bo Liu, Yingle Fan, Xuzhou Power Supply Branch of State Grid Jiangsu Electric Power Company; Kaiwen Yao, China University of Mining and Technology</td>
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<tr>
<td></td>
<td>Hailong Gao, Xuequan Xiao, Yushan Zhou, Xiao Zhang, Xuzhou power supply branch of State Grid Jiangsu Electric Power Company; Yihang Zhao, Electrical and Power Engineering of China University of Mining and Technology</td>
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## Conference Room 2

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<td>13:00 – 14:15</td>
<td><strong>T4: Microgrids and Smart Grids</strong></td>
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<td>Chair: Renke Huang, Yiyan Li, Shanghai Jiao Tong University</td>
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<td>[1] IESES23-000023: Research on Optimal Scheduling Considering the Integration of Source-Network-Load-Storage Coordination in Extreme Conditions</td>
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<td>Wudi Bao, School of Automation Nanjing University of Science and Technology; Fei Wang, Nanjing University of Science and Technology; Yue Chen, Yidan Hu, Hangping Yang, Junfang Zhang, Nanjing University of Science and Technology</td>
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<td>Jingjie Wang, Weidong Xiao, University of Sydney; Xiaochao Li, Xiamen University</td>
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<td>Hideharu Sugihara, Kwansei Gakuin University</td>
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<td>Huagu Chen, Yuyu Geng, Chongqing University of Technology</td>
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<td>[5] IESES23-000082: Hierarchical Distributed Consensus based Economic Dispatch of Distributed Energy Resources (DERs) for Networked Microgrids</td>
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<td>Skieler Capezza, Aditya Joshi, North Carolina State University; Mo-Yuen Chow, Shanghai Jiao Tong University</td>
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### Detailed Schedule | Thursday, July 27th

#### Conference Room 2

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<td>SS3-I: Regenerative Energy Utilization in Traction Power Supply System</td>
<td>Chair: Wei Liu, Southwest Jiaotong University, China; Zhongping Yang, Beijing Jiaotong University, China</td>
</tr>
<tr>
<td>[1] IESES23-000006: Study of Canceling Onboard Braking Resistance in Urban Rail</td>
<td>Jian Zhang, Wei Liu, Southwest Jiaotong University; Zhiling Yang, Yuhang Li, Shuqian Li, Bo Wu, Chengdu Shanghua Electric Co., Ltd.</td>
</tr>
<tr>
<td>[2] IESES23-000007: Research On the Coordinated Operation and Energy Saving of Reversible Converter and Rectifier Unit</td>
<td>Qian Xu, Jiaxin Zeng, Wei Liu, Peng Xiong, Qianfeng Yang, Southwest Jiaotong University</td>
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<tr>
<td>13:00 – 16:30</td>
<td>Special Event</td>
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<td>Company Tour</td>
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<td>Fuel cell and Battery Assembly Lines</td>
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<td>17:30 – 21:00</td>
<td>Special Event</td>
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<tr>
<td>Banquet</td>
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<td>Shanghai Huangpu River Night Cruise with Buffet Dinner</td>
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DETAILED SCHEDULE | Friday, July 28th

Hall A

08:30 – 09:30 | Hall A
Keynote 2: GIFT's Sustainable Energy Program and University-Industry Collaboration with CATL
Speaker: Jun Ni, Shanghai Jiao Tong University & CATL
Chair: Minfan Fu, ShanghaiTech University

09:30 – 09:45 | Coffee Break

09:45 – 11:15 | Hall A
T5: AI-based Technologies for Sustainable Energy Applications
Chair: Zhuming Bi, Purdue University Fort Wayne; Yiyan Li, Shanghai Jiao Tong University
[1] IEEES23-000008: Virtual Verification and Validation for Sustainable Manufacturing
Zhuming Bi, Purdue University Fort Wayne; Aki Mikkola, Lappeenranta-Lahti University of Technology; Raul Mula, Caterpillar Inc. Peoria, Illinois; Chaomin Luo, Electrical and Computer Engineering, Mississippi State University
Junyong You, Henning Herberg-Andersen, Yngve Heggelund, Annette Stephansen, Norwegian Research Center; Jinhua Zhang, North China University of Water Resources and Electric Power
Yue Yu, Tianzhen Wang, Shanghai Maritime University
Zhifeng Hu, Renke Huang, Chong Han, Shanghai Jiao Tong University
Nina Kharlamova, Chresten Traehold, Seyedmostafa Hasemi, Technical University of Denmark
Fei Wang, Nanjing University of Science and Technology; Yiyuan Chen, State Grid Zhejiang Electric Power Co., LTD; Jiantao Liu, China Electric Power Research Institute; Yue Chen, Nanjing University of Science and Technology; Wudi Bao, Nanjing University of Science and Technology; Hangping Yang, Nanjing University of Science and Technology

11:30 – 13:00 | Lunch
Haosheng Cafe, 1st Floor
DETAILED SCHEDULE | Friday, July 28th

Conference Room 1

09:45 – 11:15 | Conference Room 1
T6: Renewable Energy Systems
Chair: Hao Luo, Harbin Institute of Technology; Zhongfu Zhou, Swansea University

[1] IESES23-000024: Analysis of Power Grid Operation Characteristics with Distributed Generation Access Based on Data Mining
Yue Chen, Yantao Li, Yidan Hu, Junfeng Zhang, Nanjing University of Science and Technology; Xiang Ma, State Grid Zhejiang Electric Power Co., LTD; Fei Wang; Wudi Bao, School of Automation Nanjing University of Science and Technology; Jiantao Liu, China Electric Power Research Institute

Yidan Hu, Yue Chen, Hangping Yang, Junfeng Zhang, Nanjing University of Science and Technology; Fei Wang; Wudi Bao, School of Automation Nanjing University of Science and Technology

Hao Chen, Luming Liu, Tianzhen Wang, Shanghai Maritime University

Zhongfu Zhou, Swansea University

Kailing Song, IUSS Pavia; Michele Bonnin, Fabrizio Bonani, Politecnico di Torino; Fabio Traversa, Memcomputing Inc

[6] IESES23-000074: A Lithium-ion Battery Group AC Self-heating Approach Based on Multi-Active-Bridge Converter
Lianzhong Wang, National & Local Joint Engineering Research Center for Reliability Technology of Energy Internet Intelligent Terminal Core Chip, Beijing Smart-Chip Microelectronics Technology Co.; Haojun Qin, Zhikang Li, Yanshu Wang, Chengbin Ma, Ming Liu, Shanghai Jiao Tong University

11:30 – 13:00 | Lunch
Haosheng Cafe, 1st Floor
DETAILED SCHEDULE | Friday, July 28th

Conference Room 2

09:45 – 11:00 | Conference Room 2
SS3-II: Regenerative Energy Utilization in Traction Power Supply System
Chair: Zhihong Zhong, Beijing Jiaotong University; Jian Zhang, Southwest Jiaotong University
[1] IESES23-000010: Torque Distribution Control of Trains Equipped with Driven Independently Rotating Wheels for Guidance Control and Adhesion Control
Shuai Lin, Xiaochun Fang, Zhengwu Li, Fei Lin, Zhongping Yang, Beijing Jiaotong University
Xin Zheng, Ziyuan Kang, Tianye Zhang, Guifu Du, Soochow University; Qiaoyue Li, Suzhou City University

11:30 – 13:00 | Lunch
Haosheng Cafe, 1st Floor

Special Event

13:00 – 16:30 | Special Event
Company Tour & Farewell Party
EV Technical Exhibition Center

Haojun Qin, Chang Liu, Zhikang Li, Huan Zhang, Ming Liu, Chengbin Ma, Shanghai Jiao Tong University

Hongzhi Dong, Zhongbei Tian, Nutthaka Chinomi, Joseph W. Spencer, University of Liverpool; David Fletcher, University of Sheffield

Mohammed Saud Almutairi, Saudi