

# IEEE SYPS 2023

IEEE电力电子学会全球青年学者与学生论坛 2023

Proposal for IEEE PELS Students and  
Young Professionals Symposium

August 27-29, 2023  
Shanghai, China



## Important Deadlines

### 1. Technical Paper

Digest Submission Due: May. 20, 2023

Notifications of Acceptance: Jun. 10, 2023

Final Paper Submission Due: Jul. 15, 2023

### 2. Tutorials and Experience Sharing Talks

Proposal Submission Due: Jun. 10, 2023

Notifications of Acceptance: Jun. 30, 2023

Final Material Submission Due: Jul. 30, 2023

### 3. IEEE PELS Student Branch Chapter (SBC) Competition

Proposal Submission Due: Jul. 30, 2023

Notifications of Competition Result: Aug. 10, 2023

## Sponsors/Organizers/Supporters

**Sponsor:** IEEE Power Electronics Society (PELS)

**Technical Co-sponsors:** IEEE PELS Shanghai Chapter, Shanghai University

**Organizers:** IEEE PELS Membership Committee-China, Shanghai University

**Supporters:** IEEE PELS Membership Development & Service Subcommittee-China, Conference Subcommittee-China, Women in Engineering Subcommittee-China; IEEE PELS Beijing, Xi'an, Wuhan, Chengdu, Guangzhou, Zhejiang/Jiangsu/Anhui Chapters; IEEE PELS Shanghai University, Shanghai Jiao Tong University, Tongji University, Fudan University Student Branch Chapters

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The IEEE Power Electronics Society (PELS) constantly strives to bring new and improved products as well as events, which are relevant to the current needs of its members and future trends of technology. One of the latest endeavors in this regard is the IEEE PELS Students and Young Professionals Symposium (SYPS), which had its inaugural edition virtually in March 2021.

SYPS 2023 will be held in Shanghai, China, on August 27-29, and organized by IEEE PELS Membership Committee-China, IEEE PELS Shanghai Chapter, and Shanghai University. It will be the first time the venture of SYPS comes to real life in person, free from the impact of COVID 19. Inherited from SYPS 2021, three pillars "worldwide connection", "meet industry leaders", and "have some fun" will be delivered to SYPS 2023, and we hope to make them as the customized culture tags of SYPS in the future journey. We are expecting to create a global, professional and interesting offline communication platform, with the young professionals and students in the field of power electronics from all over the world.

The worldwide power electronic industry, research, and academia are cordially invited to participate in an array of presentations, tutorials, and social activities for the advancement of science, technology, engineering education, and fellowship. Technical interests of the conference include, but are not limited to:

### 1. Energy Conversion Systems and Applications

- Renewable and alternative energy power electronics systems
- Critical power and energy storage systems
- Aerospace energy conversion systems
- Grid-forming technologies
- High power/voltage power conversion (HVDC, FACTS and multi-terminal DC systems)
- Power-to-X and green hydrogen systems
- Microgrids, hybrid ac/dc grids, and de grids
- Energy access and off-grid systems
- Energy conversion for information technology and communication systems
- Electrification for commercial, industrial and transportation applications
- Big data and artificial intelligence in energy conversion
- Wireless power transfer
- Lighting applications and displays
- Industrial motor drives
- Medical, IoT and energy harvesting
- Power electronics for agriculture

### 2. Component, Converter and Subsystem Technologies

- Power electronic devices, gate drivers, and integrated circuits
- Passive components and materials
- Power electronic packaging integration
- Reliability, advanced fault protection systems, diagnostics, prognostics, and health management
- Thermal management and advanced cooling technologies
- Innovative magnetic materials, alternative conductor and winding insulation technologies
- Electromagnetic interference and electromagnetic compatibility
- Power conversion topologies, modulation, and control
- Electrical drive systems and topologies and their control
- Rotating/linear electromechanical devices
- Advanced manufacturing
- Digital twins, cloud design and simulation techniques for energy conversion systems
- Cyber-and-physical security for power electronics systems

## Paper Submission

Prospective authors are invited to electronically submit digests of their work in English (Maximum 5 pages in double space, in PDF format), following the instructions available on the website: <http://syps2023.net>. The digest is a summary of your paper including the digest title, abstract, digest text and references.

Accepted and presented papers will be published in the conference proceedings, and submitted to the IEEE Xplore on-line digital library and EI Compendex. Several selected best paper awards will be given with certificates and monetary prize.

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## Secretariat of SYPS 2023

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## More Participation Opportunities

### 1. Tutorials

Several high-quality tutorials will be offered in the afternoon of Aug. 27, 2023. Prospective lecturers are invited to send a proposal before Jun. 10, 2023 via the conference website. The proposal should be including:

- Tutorial title
- Presenter short bio
- Tutorial description (no more than 1000 words)

The notifications of acceptance will be sent before Jun. 30, 2023 and the accepted final material should be submitted before Jul. 30, 2023.

### 2. Experience Sharing Talks

Some interesting experience sharing talks will be offered in the morning of Aug. 29, 2023. These talks will help students and young professionals grow at different stages. Prospective lecturers are invited to send a proposal before Jun. 10, 2023 via the conference website. The talk topics include, but are not limited to:

- The benefits of joining PELS
- Introduction of IEEE journal paper review process
- The way to prepare faculty interviews for universities
- Career planning in industrial field
- How to grow fast as a postdoc

The notifications of acceptance will be sent before Jun. 30, 2023 and the accepted final material should be submitted before Jul. 30, 2023.

### 3. IEEE PELS SBC Competition

IEEE PELS SBCs from all over the world are encouraged to give their presentations for the contributions to PELS activities in the past one year. The proposal should be submitted before Jul. 30, 2023 and the notifications of competition result will be sent before Aug. 10, 2023. Besides the certificates and monetary prize, the owners of first, second, third place awards will be invited to give lectures in the morning of Aug. 29, 2023 to share their experience about how to run a PELS SBC successfully.

### 4. Industrial Tour

In the afternoon of Aug. 29, 2023, a free opportunity of visiting Shanghai International Power Components and Renewable Energy Management Exhibition (PCIM) will be provided. As the Asia's leading power electronics exhibition, the exhibition has won unanimous praise from exhibitors and audiences for its professionalism, comprehensive product categories, and high-quality conferences and forums. Prospective attendees should register in advance.

### 5. Job Fairs and Exhibition from Industrial Sponsors

Exhibitions by industrial partners will be offered throughout the three days of SYPS 2023, as well as job fairs with vacancies from companies or research institutes, and Doctor/Postdoc/Faculty position vacancies from universities. It will be a good opportunity for the students who are seeking the potential possibilities of their future.

## Welcome to Shanghai China

Shanghai is one of the four direct-administered municipalities of the People's Republic of China, as well as one of the world's major centers for finance, business and economics, research, science and technology, manufacturing, transportation, tourism, and culture. The city is located on the southern estuary of the Yangtze River, with the Huangpu River flowing through it.

The symposium venue and hotel, Novotel Shanghai Atlantis is strategically situated in the heart of Pudong's premier financial district, with easy access to the world famous Bund or the Oriental Pearl TV Tower. The hotel offers the best service in European style, and the fantastic high-altitude views with the art revolving restaurant & lounge at 50th floor.

