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**ICOPE-2023** *International Conference  
on Power Engineering*

## Call for Papers

International Conference on Power Engineering – 2023

May 21<sup>st</sup> - 26<sup>th</sup>, 2023

Kyoto International Conference Center, Kyoto, Japan

Organized and sponsored by

The Power and Energy System Division of  
**The Japan Society of Mechanical Engineers**

Co-Organized by

The Clean Energy Technology Group of  
**The American Society of Mechanical Engineers**

and

**Chinese Society of Power Engineering**

### Objective

The conference aims to provide a platform for promoting collaborations among professional societies and enhancing the technical exchanges in the power engineering community regarding thermal power, distributed energy system including heat and power utilization, energy storage, renewable energy, environmental issues including low-carbon, CCS (Carbon dioxide Capture and Storage), CCUS (Carbon dioxide Capture, Utilization and Storage) and waste to energy, and the other energy-related topics. Hydrogen is expected to be a key fuel for energy storage of variable renewable energy, low-quality coal utilization, and low-carbon energy systems. CCUS is attracting attention as a bridging technology. The conference will be held in Kyoto, a famous ancient city where an innovative CCS is demonstrating-

### Scope and Topics

#### ICOPE-ICONE Shared Track:

##### 0. Carbon Neutral Power Systems for Future World

Organized by Prof. Yukitaka KATO (Tokyo Institute of Technology) and Prof. Ryoichi KOMIYAMA (University of Tokyo)

Energy storage technologies for power grid, P2X, energy carrier, power grid management, power grid system analysis, demand response

ICOPE will cover both fundamental and applied topics in power engineering, including:

##### 1. Centralized Power Generation Systems

Organized by Dr. Yuso OKI (Central Research Institute of Electric Power Industry)

All advanced cycles such as A-USC, MACC, Triple Combined Cycle, IGCC, IGFC, Allam Cycle, Hybrid Cycle

##### 2. Distributed Energy Systems

Organized by Prof. Takuto ARAKI (Yokohama National University) and Prof. Kosuke NISHIDA (Kyoto Institute of Technology)

Combined Heat and Power (Co-generation system), Fuel Cells, Internal/External Combustion Engines, Organic Rankine Cycle, Smart Grid, Microgrid, Heat Pump Systems, Waste Heat Recovery

##### 3. Renewable Energy

Organized by Prof. Tetsuya WAKUI (Osaka Metropolitan University) and Prof. Shoma FUJII (The

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University of Tokyo)

Geothermal Energy, Wind Turbines, Tidal Power Generation, Solar Power

#### 4. Hydrogen Energy Technologies

Organized by Prof. Masashi KISHIMOTO (Kyoto University) and Dr. Mina NISHI (Central Research Institute of Electric Power Industry)

Hydrogen Production, Transportation and Utilization System, Fuel Cell for Automobile

#### 5. Turbines and Generators

Organized by Dr. Shigeki SENOO (Mitsubishi Heavy Industries, Ltd.)

Gas Turbines, Steam Turbines, Hydraulic Turbines and Generators

#### 6. Advanced Combustion Technologies

Organized by Prof. Hiroaki WATANABE (Kyushu University) and Mr. Masahito SAITOU (Kawasaki Heavy Industries, Ltd.)

All Combustion technologies, Slag Management, Oxy-fuel Combustion

#### 7. Thermal Hydraulics, Boiling and Condensation

Organized by Prof. Chaobin DANG (Fukui University) and Mr. Hiroki Umetsu (Central Research Institute of Electric Power Industry)

CFD, Experimental Techniques

#### 8. Materials Engineering for Energy Systems

Organized by Dr. Yoshimitsu TSUMITA (IHI Corporation) and Prof. Yoichi TAKEDA (Tohoku University)

New Metal Alloys for Boilers, Materials for Turbine Blades and Governor Valves

#### 9. Operation, Maintenance and Diagnosis Technologies

Organized by Prof. Yoshiharu AMANO (Waseda University)

Non-destructive Inspection, Measurement Techniques, Robotics, IoT-AI

#### 10. Power Grid Stabilization Technologies

Organized by Mr. Yutaka WATANABE (Central Research Institute of Electric Power Industry)

Energy Storage, Demand Response, Load Following and Leveling

#### 11. Environmental Protection

Organized by Prof. Toshio OTAKA (Kokushikan University)

Carbon Capture, Utilization and Storage (CCUS), Gas and Water Aftertreatment, Waste to Energy

#### 12. Techno-Socio-Economic Aspect of Energy System

Organized by Dr. Fumihiko YOSHIBA (Central Research Institute of Electric Power Industry)

Techno-Economic Analysis, Safety and Security, Regulations and Standards

#### 13. Other Topics

Organized by Mr. Takayuki OZEKI (Central Research Institute of Electric Power Industry)

Other Topics Related to Power Engineering

#### 14. Student Competition

Organized by Research Fellow Akira YOSHIDA (Waseda University)

Special Track for Student Competition Applicants, All Topics Related to Power Engineering

If you are a student, **please select Track-14 as your first choice** and apply for the Student Competition on the file submission page.

Outstanding presenters will have award with a certificate and a supplementary prize (equivalent to registration fee).

**Eligibility requirement:** Students must be studying Power Engineering related fields as of **September 21, 2022**.

### Steering Committee

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**Prof. Takao Nakagaki**, *Waseda University*

Co-Chair

**Mr. Frank L. Michell**, *Chair of the ASME Clean Energy Technology Group*

**Prof. Jianhua Yan**, *Zhejiang University*

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**Mr. Kazuo Tanaka**, Chair of the Planning Committee  
*Kawasaki Heavy Industries, Ltd.*

Secretary General **Dr. Yuso Oki**, *Central Research Institute of Electric Power Industry*

### Abstract Submission

Authors willing to present their papers should submit **400 words abstracts in English** via the conference website (<https://www.icope-2023.org/>). Initial screening will be based on the abstracts. Authors should make their **pre-registration until March 10, 2023**, and to present their papers in oral sessions individually.

### Important Dates for Authors

<b>September 21, 2022</b>	<b>400 words abstract due</b>
<b>October 26, 2022</b>	<b>Notification of abstract acceptance</b>
<b>November 25, 2022</b>	<b>Extended abstract due</b>
<b>February 8, 2023</b>	<b>Notification of extended abstract acceptance</b>
<b>March 10, 2023</b>	<b>Pre-registration, at least one of the authors with registration fee due</b>
<b>March 31, 2023</b>	<b>Final manuscripts due</b>

The dates are subject to change; please check the conference website.

All extended abstracts will be peer reviewed in format along with template. All accepted extended abstracts will be accessible to registered participants on the Online Program web page. Also, the accepted papers will be recommended for publication in the **Mechanical Engineering Journal** or **Waste Disposal & Sustainable Energy** upon reviewers' recommendation.

\* Please note that JSME will distribute the proceedings to the registered attendees of ICOPE-2023 only. The official archival proceedings will not be published after the conference. The copyright of each paper will belong to each author.

### Conference website

Detailed information about the conference, including location, travel, accommodation, abstract submission, proceedings, venues, registration, etc., can be found at the conference website: <https://www.icope-2023.org/>

### Contact

If you have any questions, please don't hesitate to contact the following address.

**All countries except for China: ICOPE-2023 Secretariat**

**E-mail: [icope-2023@jsme.or.jp](mailto:icope-2023@jsme.or.jp)**

**China: ICOPE-2023 Secretariat in China (Prof. Xiaoqing Lin, Zhejiang University)**

**E-mail: [linxiaoqing@zju.edu.cn](mailto:linxiaoqing@zju.edu.cn)**

