

First Circular

# ICOPE-2021

International Conference  
on Power Engineering



October 17-21 2021  
Virtual Conference, Online

Organized and Sponsored by  
The Japan Society of Mechanical Engineers

Co-organized by  
Chinese Society of Power Engineering  
The American Society of Mechanical Engineers



## History

ICOPE (International Conference on Power Engineering) is an international conference targeting a vast area of power and energy systems studies with the exception of nuclear power generation. The conference is drawing interest as an ideal place to present on a variety of studies such as developments of industrial technologies, researches on measuring methods and evaluation tools, and feasibility studies. "The first JSME-ASME International Conference on Power Engineering" was held in Tokyo in 1993, jointly hosted by The Japan Society of Mechanical Engineers (JSME) and American Society of Mechanical Engineers (ASME). From then onwards, this conference has taken place biennially. In the year 1995, Chinese Society of Power Engineering (CSPE) joined to host the conference in Shanghai. Thereafter, it has been successfully held in Tokyo (1997), San Francisco (1999), Xian (2001), Kobe (2003), Chicago (2005), Hangzhou (2007), Kobe (2009), Denver (2011), Wuhan (2013), Yokohama (2015), Charlotte (2017), and Kunming (2019). As a continuation, the 15th ICOPE conference will be held as virtual conference in 2021.

## Aims

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 power utilization and energy storage, renewable energy, environmental issues including low-carbon, CCS, CCUS and waste to energy, and the other energy related topics. Hydrogen is expected to be a key fuel for energy storage of natural energy, low-quality coal utilization, and low-carbon energy systems.

## Scope

- 1. Centralized Power Generation Systems**  
All advanced cycles such as A-USC, MACC, Triple Combined Cycle, IGCC, IGFC, Allam Cycle, Hybrid Cycle
- 2. Distributed Energy Systems**  
Combined Heat and Power (Co-generation system), Fuel Cells, Internal/External Combustion Engines, Organic Rankine Cycle, Smart Grid, Micro Grid, Heat Pump Systems, Unused Heat Regeneration
- 3. Renewable Energy**  
Geothermal Energy, Wind Turbines, Tidal Power Generation, Solar Power
- 4. Hydrogen Energy Technologies**  
Hydrogen Production, Transportation and Utilization System, Fuel Cell for Automobile
- 5. Turbines and Generators**  
Gas Turbines, Steam Turbines, Hydraulic Turbines and Generators
- 6. Advanced Combustion Technologies**  
All Combustion technologies, Slag Management, Oxy-fuel Combustion
- 7. Thermal Hydraulics, Boiling and Condensation**  
CFD, Experimental Techniques
- 8. Materials Engineering for Energy Systems**  
New Metal Alloys for Boilers, Turbine Blades and Governor Valves
- 9. Operation, Maintenance and Diagnosis Technologies**  
Non-destructive Inspection, Measurement Techniques, Robotics, IoT-AI
- 10. Power Grid Stabilization Technologies**  
Demand Response, Load Following and Leveling, Energy Storage
- 11. Environmental Protection**  
Carbon Capture, Utilization and Storage (CCUS), Gas and Water Aftertreatment, Waste to Energy
- 12. Techno-Socio-Economic Aspect of Energy System**  
Techno-Economic Analysis, Safety and Security, Regulations and Standards
- 13. Other Topics**  
Other Topics Related to Power Engineering

## Conference Schedule

- Oct. 18, Mon: Opening Address and Plenary Lectures  
Technical Session
- Oct. 19, Tue: Technical Session  
Hydrogen Energy Workshop
- Oct. 20, Wed: Technical Session
- Oct. 21, Thu: Technical Tour

## Plenary Lecture



**Prof. Makoto Akai**  
Kyushu University

CCS - From an R&D toward a Policy Agenda as a Vital Tool to realize Carbon Neutral Society



**Prof. Fei Wang**  
Zhejiang University

Developments and Opportunities of Co-combustion Technology of Coal and Biomass/Waste in China



**Mr. Frank L. Michell,**  
Chair of the ASME Energy Generation and Storage Technology Group

Evolving US Power Market Transition to Clean Energy

## Important Dates for Presenting Authors

- Jul. 31, 2021 Notification of extended abstract acceptance
- Aug. 10, 2021 Pre-registration of at least one of the co-authors with registration fee
- Aug. 31, 2021 Final manuscripts of the extended abstract due

## Conference Fees

Participation is open to all persons interested in this conference. Please note that **ALL** persons intending to attend the ICOPE-2021 must complete the registration by **no later than October 10, 2021**.

Every presenter must make registration with the applicable conference fees **by no later than August 10, 2021** to guarantee inclusion of the paper in the program and on the proceedings.

Online registration system is available via ICOPE-2021 official website, <https://www.jsme.or.jp/pes/ICOPE-2021/>

Category	Registration fee
JSME/ASME/CSPE Member: Regular	40,000 JPY
Non-Member: Regular	50,000 JPY
JSME/ASME/CSPE Member: Student	20,000 JPY
Non-Member: Student	25,000 JPY

Registration deadline: October 10, 2021

## Proceedings

All extended abstracts will be peer reviewed and published in the Conference Proceedings.

## Special Issues

The authors are encouraged to submit their full papers to the special issues of the Mechanical Engineering Journal or Waste Disposal & Sustainable Energy.

## Steering Committee

- Chair Hitoshi Asano (Kobe University)
- Co-Chair Frank L. Michell (Chair of the ASME Energy Generation and Storage Technology Group)  
Jianhua Yan (Zhejiang University)
- Members Masahide Kazari (Kawasaki Heavy Industries, Ltd.)  
Ryosuke Matsumoto (Kansai University)  
Tsubasa Ohshima (Hitachi Zosen Corporation)
- Secretary General Hideki Murakawa (Kobe University)

## Organizing Committee

- Chair Hiroshi Nakatani (Kawasaki Heavy Industries, Ltd.)
- Co-Chair Kazumitsu Takanishi (The Kansai Electric Power Co., Inc.)  
Mamoru Ozawa (Kansai University)

### Members

- Yutaka Abe
- Fumiteru Akamatsu
- Yoshiharu Amano
- Takuto Araki
- Chaobin Dang
- Takashi Ekida
- Junji Fujii
- Masafumi Fukuda
- Yuichiro Goto
- Saburo Hara
- Masamichi Hashiguchi
- Tatsuya Hazuku
- Katsuya Hirata
- Masafumi Hirota
- Akihiko Horibe
- Yasuyuki Ikegami
- Ryoji Imai
- Hideki Imai
- Hideyoshi Ishida
- Shiro Ishise
- Yoshinori Itaya
- Hiroshi Iwai
- Toshiyuki Kamakura
- Yukitaka Kato
- Chisachi Kato
- Akimaro Kawahara
- Hiroshige Kikura
- Fumiyoshi Kimura
- Atsuki Komiya
- Mitsuru Konno
- Masanobu Kontani
- Nobuhiko Kubota
- Hiroaki Matsumoto
- Yukihiko Matsumura
- Hisato Minagawa
- Akio Miyara
- Masanori Monde
- Shoji Mori
- Tetsuo Munakata
- Yuichi Murai
- Makoto Murayama
- Niro Nagai
- Kazuyoshi Nakabe
- Tsuguhiko Nakagawa
- Hiraku Nakahodo
- Koichiro Nakamura
- Toshihiko Nakata
- Haruhisa Nakazawa
- Kosuke Nishida
- Nobuya Nishimura
- Naoki Oda
- Yutaka Ohta
- Yuji Ohya
- Masahiro Osakabe
- Toshio Otaka
- Kiyoshi Saito
- Takashi Sasaki
- Toru Sawai
- Izuru Senaha
- Jiro Senda
- Naoki Shikazono
- Satoshi Someya
- Hiroshi Suzuki
- Shinsuke Suzuki
- Yutaka Tabe
- Kiyoshi Takano
- Yasuyuki Takata
- Yoichi Takeda
- Tetsuaki Takeda
- Masahiro Takei
- Tadashi Tanuma
- Takaharu Tsuruta
- Hisashi Umekawa
- Tsutomu Wakamatsu
- Tetsuya Wakui
- Akira Yabe
- Akira Yamada
- Kenji Yamaji
- Hiroshi Yamanobe
- Toshihiko Yasuda
- Atsumasa Yoshida