

The 2024 International Conference on Supercritical CO₂ Power Cycle and Comprehensive Energy System

September 20-24, 2024 Shanghai, China



Conference Introduction

Website: <https://icspc2024.allconfs.com/>

As an emerging technology, supercritical CO₂ power cycle requires collaborative efforts from both research and industrial development. Such efforts include breakthroughs in fundamental principles, new concepts, key equipment and demonstrations, through pioneering trials and applications of advanced supercritical carbon dioxide cycle technology. The Institute of Engineering Thermophysics, Chinese Academy of Sciences, in collaboration with North China Electric Power University and Xi'an Thermal Power Research Institute, will host the **2024 International Conference on Supercritical CO₂ Power Cycle and Comprehensive Energy Systems (ICSPC2024)** in the city of Shanghai in September 20-24, 2024.

ICSPC2024, as the fifth in the series (2018 Beijing, 2019 Xi'an, 2022 Xi'an, 2023 Beijing, 2024 Shanghai), covers topics ranging from fundamental supercritical thermophysical properties, thermodynamics, heat transfer, turbomachinery, key components R&D and system integration and operations. The ICSPC2024 welcomes worldwide scientists, engineers, and students engaged in the R&D of sCO₂ systems. At the same time, the state key scientific facility 'High-Efficiency and Low-carbon Gas Turbine - 3MW CO₂ power system', constructed by the conference organizer (IET-CAS), will be in operation in Shanghai, and serve as one key platform for this conference. Sincerely we hope you can enjoy the conference events and have fruitful exchange and cooperation outcomes in various aspects during and after the conference.

Topics

Include but not limited to:

- (1) Thermodynamics & System Integration of Supercritical Power Cycle
- (2) Supercritical Fluid Flow Heat Transfer & Heat Exchanger
- (3) Supercritical Fluid Thermal Power Conversion & Equipment
- (4) Supercritical Composite Fluid Power Cycle
- (5) Supercritical Fluid Energy Storage/CCUS Theory and Technology
- (6) Supercritical Fluid Chemical & Materials Technology
- (7) Nanoenergy Technology & Applications
- (8) Other Multi-Energy Complementary & New Energy Technologies
- (9) [Themed Session 1] : Supercritical Pseudo-Phase Transition Theory
- (10) [Themed Session 2] : Supercritical Cycle Operation & Control
- (11) [Themed Session 3] : State Key Scientific Facility (Shanghai)
- (12) [Themed Session 4] : Key Progress of Demonstration Project
- (13) [Industry Session] : Key Equipment Manufacturing

Key Timelines

- Apr 30, 2024 Abstract submission
- May 15, 2024 Abstract acceptance notification
- Jun 15, 2024 Full paper submission
- Jul 15, 2024 Notification of full paper acceptance
- Aug 15, 2024 Early Bird Registration

Submission, Awards & Publication

- Abstracts and full papers should be submitted through the conference website: <https://icspc2024.allconfs.com/>.
- Outstanding papers will be selected and awarded in the conference banquet.
- Selected full papers will be recommended for publication in SCI indexed international journals such as *Energy*, *J. Supercrit. Fluids*, *J. of Thermal Science*, *Science China - Technology Sciences*, as well as in the *Springer Conference Proceedings*.

Registration Fee

Registration type	Before Aug. 15, 2024	From Aug.16, 2024
Teacher/Regular	500USD/3500RMB	575USD/4000RMB
Student	350USD/2500RMB	425USD/3000RMB
Accompany	350USD/2500RMB	425USD/3000RMB

Note: (1) Each paper/abstract need at least one Regular registration; (2) Registration fee covers entering of conference sessions, conference materials, banquet and coffee breaks; (3) The conference provides recommendations for accommodation, please directly reserve and make payment to the hotel.

Organizing Team

Organiser: Institute of Engineering Thermophysics, Chinese Academy of Sciences, China

Co-Organizer: North China Electric Power University, China
Xi'an Thermal Power Research Institute, China

Conference Chair: Prof. Lin CHEN, Institute of Engineering Thermophysics, Chinese Academy of Sciences, China

Co-Chairs: Prof. Jinliang XU, North China Electric Power University, China

Dr. Hongzhi LI, Xi'an Thermal Power Research Institute Co., Ltd, China

Executive Chairs: Dr. Jian XIE (NCEPU), Prof. Xiang XU (IET-CAS), Dr. Yifan ZHANG (TPRI)

