

# **2024 International Seminar on Advances in High-Efficiency Cooling and Heating Technologies and Standardization Research & 2024CAR-ASHRAE Technical Exchange**

## **1. Background**

The seminar special event will serve as a platform to showcase the latest refrigeration and air-conditioning (heat pump) low-carbon technologies, energy-saving solutions, market transformation promotion measures, testing technologies and their standardization. Domestic and international famous experts, manufacturing enterprises and standardization organizations will be invited to deliver keynote speeches and seminars, share experiences and insights, and promote global exchange and cooperation on low-carbon technologies and standardization in refrigeration and air conditioning. Participants will have the opportunity to gain an in-depth understanding and discuss the cutting-edge development and application cases of low-carbon technologies in refrigeration and air-conditioning, the latest progress in energy-saving and low-carbon standardization and industry dynamics.

## **2. Topics**

The topics below are involved but not limited to:

- 1) Refrigeration and Air-conditioning (heat pump) Products
- 2) Low-carbon Technologies
- 3) Energy Efficiency Improvement Technologies
- 4) Energy-saving Solutions
- 5) High-Efficiency Products Market
- 6) Testing Technologies and Standardization, etc.

## **3. Organization**

### **1) Committee**

Presidents of Seminar

Zhang Xiaosong, Cheng Jianhong

organizer:

- Chinese Association of Refrigeration

Organizer: Southeast University

- Gree Electric Appliances, INC
- Midea Building Technologies

## 2) Participating institutions

### a) International

- University of Birmingham
- The City University of Hong Kong
- ASHRAE
- International Institute of Refrigeration
- CLASP
- Japan Refrigeration and Air Conditioning Industry Association

### b) Domestic

1) Academic organizations:

- Chinese Association of Refrigeration
- China Household Electrical Application Association

2) Universities in major related industries:

- Southeast University
- Shanghai Jiao Tong University
- Xi'an Jiaotong University
- Huazhong University of Science and Technology
- Tsinghua University
- Harbin Institute of Technology
- South China University of Technology
- Tongji University
- Beijing University of Technology
- Zhejiang University

3) Head enterprises in related industries

Gree, Midea, Haier, YORK, Johnson Controls, DAIKIN, TICA, Sanhua Group and China IOL, etc.

4) Scientific Research Organizations:

- General Machinery Research Institute
- China Household Electric Appliance Research Institute
- China National Institute of Standardization
- Internal Trade Engineering Design & Research Institute

#### **4. Program and Location**

##### **1) Location**

Crowne Plaza International Airport Hotel Beijing

##### **2) Implementation schedule**

April 06, 2024 Meeting Coverage

April 07, 2024 Meeting Date

##### **3) Program and Reports**

**The conference invites domestic and international renowned experts and scholars to carry out reports in the fields related to cold and heat source technology and standardization, as follows:**

### Schedule

	Topic Reports (Energy-Efficiency Standardization)	Host Professor Yin Yonggao
9:00-10:20 (Keynote Speech)	Opening (10 minutes)	Professor Zhang Xiaosong
	(1) Exploration on energy efficiency standard and green development of air conditioning products in China	Jianhong Cheng China National Institute of Standardization
	(2) Detailed interpretation of Energy and Emissions Building Performance Standard for Existing Buildings-ASHRAE Standard 100-2024	Ginger Scoggins (ASHRAE)
	(3) Research and Promotion of International Refrigeration and Air Conditioning Standardization	Colin Taylor (CLASP)
	(4) Progress of Energy-Saving Technologies and Standardization for Air Conditioning in Japan	Japan Refrigeration and Air Conditioning Industry Association (To be continued)
10:20-10:30	Tea Break (10 minutes)	
10:30-11:50 (Keynote Speech)	(5) Overview of cooling policies and technology trend in India	P.K. Mukherjee & Prasun Pandey (CLASP)
	(6) The latest development trend of ISO HVAC test and evaluation method-	Yang Cao China academy of building research
	(7) The Brazilian air conditioner industry: challenges and opportunities for energy efficiency improvement	Edilaine Camillo
	(8) Energy-Saving Technology and Evaluation Methods for Air Conditioning Running	Xianlin Wang Gree Electric Appliances Co.
	Topic Reports (Energy-Saving Technology)	Host Jianhong Cheng
13:30-15:30 (Keynote Speech)	(1) Development Pathways of Key Low-Carbon Technologies for Heating and Cooling Equipment	Xiaosong Zhang Southeast University
	(2) Flexible heat pump and energy storage technology for high efficiency solar energy utilization	Wei Wu City University of Hong Kong
	(3) Intelligent Impact on Energy Efficiency and Standards of Multi-Split Systems	Huanxin Chen Huazhong University of Science and Technology
	(4) Heat pump using natural refrigerants	Markus Wypior Giz
15:30-15:40	Tea Break (10 minutes)	
15:40-17:10 (Keynote Speech)	(5) Progress of energy efficiency testing technology for cooling and heating equipment	Haibin Fan General Machinery Research Institute
	(6) Key technologies for the innovative solar driven heating and cooling systems	Xudong Zhao University of Hull
	(7) Efficient and intelligent environmental control solutions help low-carbon upgrading of buildings	Midea Building Technologies (To be continued)

## **5. Contacts**

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Southeast University