



Call for Participants

9th International Training Workshop on Waste to Energy

Date: from 9th to 23rd November, 2025

Location: King Abdulaziz City for Science and Technology (KACST), Riyadh, Saudi Arabia

Overview:

The 9th International Training Workshop on Waste to Energy (WtE) will be held at **KACST in Riyadh**, marking the first edition hosted in the **Middle East**. Since its inception in 2016, the Workshop, supported by the **Ministry of Science and Technology of the People's Republic of China (MOST)**, has become a global platform for knowledge exchange on sustainable waste management, bringing together government officials, scholars, and engineers from more than 40 developing countries.

The 2025 edition is a **symbolic milestone**, celebrating the legacy of *Ibn Battuta*, whose travels embodied the spirit of discovery and cross-cultural exchange. From **Hangzhou to Riyadh**, this “caravan of knowledge” continues to bridge Asia and the Arab world, advancing global efforts toward **methane mitigation** and **sustainable development** through energy recovery from waste.

Aligned with **Saudi Arabia's Vision 2040**, which aims to divert **90% of waste from landfills**, this year's workshop focuses on **capacity building, policy integration, and technology transfer** for a circular economy.

Background:

With the rapid urbanization of emerging economies, municipal solid waste (MSW) generation has increased dramatically. Many countries still face inadequate waste disposal systems and limited infrastructure, leading to environmental degradation and methane emissions from landfills.

China's experience in developing and scaling Waste-to-Energy technologies provides valuable lessons for the world. Over the past three decades, China has established the **largest WtE market globally**, with **over 1,135 facilities currently in operation** and a **total treatment capacity exceeding 1.1 million tons of municipal solid waste per day**, according to publicly available data. This achievement has been driven by continuous innovation in **combustion and thermal conversion technologies**, the development of **high-efficiency pollutant control systems**, and the implementation of a **comprehensive regulatory and policy framework**. Through sustained **international collaboration and technical exchange**, China's experience demonstrates how large-scale WtE deployment can effectively support **climate goals, methane mitigation**, and the **transition toward circular and low-carbon economies** worldwide.

Since 2016, Zhejiang University and its partners have organized eight successful editions of this Workshop, training over 206 participants from 39 developing countries. Supported by the International Consultant Committee of Waste to Energy (ICCWtE), Zhejiang University of Technology, and the Global Waste-to-Energy Research and Technology Council (WtERT®), the Workshop has become a key global capacity-building initiative.

The 2025 Workshop in Riyadh will extend this legacy to **Saudi professionals and participants from developing nations**, strengthening international cooperation and supporting global methane reduction goals.

Objectives:

The Workshop aims to:

1. Share **China's and other leading countries' experience** in Waste-to-Energy technologies and management.
2. Strengthen **capacity building** in developing countries to promote sustainable solid waste management and energy recovery.
3. Facilitate **technology transfer, international cooperation, and project development** across government, academia, and industry.
4. Support **Saudi Arabia's Vision 2040** in achieving high-value recovery from waste and reducing greenhouse gas emissions.
5. Foster an **international WtE network** among policymakers, researchers, and practitioners

Training Format and Structure:

The Workshop will feature **daily 6-hour sessions** (in English), including:

- **Lectures and Keynotes** by leading global experts
- **Case studies and group discussions**
- **Technical site visits** to KSA facilities
- **Interactive Q&A and project mentoring**
- **Certificate of Completion** jointly issued by the organizers

Main Trainings Topics:

1. Global Solid Waste Management and China's Experience

- Evolution of waste systems and landfill diversion strategies
- China's transformation from waste disposal to energy recovery

2. Waste-to-Energy Technologies

- Grate-firing and fluidized bed systems
- Pyrolysis and gasification technologies
- System design, operation, and optimization

3. Pollution Control and Environmental Standards

- Dioxin and heavy metal control
- Fly ash treatment and management strategies
- Air pollution control systems in modern WtE plants

4. Methane and Carbon Emission Reduction

- Greenhouse gas emissions from landfills and incineration
- Quantifying and reducing methane through WtE deployment

5. Circular Economy and Resource Recovery

- Solid recovered fuel (SRF) utilization
- Waste segregation and material recovery
- Business models for sustainable waste management

6. Public Acceptance and Policy Frameworks

- Overcoming "Not In My Backyard" (NIMBY) challenges
- Governance, regulations, and public engagement

7. Digitalization and Innovation in WtE Plants

- Artificial intelligence in combustion optimization
- Data-driven monitoring for emission control

8. International Case Studies and Cooperation Opportunities

- Experiences from China, Saudi Arabia, Europe, and Southeast Asia
- Pathways for joint projects and regional collaboration

Eligibility:

The Workshop welcomes **50 participants** from:

- **Saudi Arabia** – including government agencies, universities, municipalities, and private sectors
- **Developing countries** involved in solid waste management, energy recovery, and environmental protection

Requirements:

- Bachelor's degree or equivalent professional experience
- English proficiency (for lectures and discussions)

Costs:

- No tuition or registration fees will be charged.
- Participants are responsible for travel, accommodation, meals, and other personal expenses.

Application Procedure:

- Complete the online application form: https://mostitp.cistc.gov.cn/student_login.aspx

Important Dates:

- **Application closes:** October 31th, 2025
- **Notification of acceptance:** 1st November, 2025

Host:

Department of International Cooperation, Ministry of Science and Technology, P.R. China

Organizer:

College of Energy Engineering, Zhejiang University
King Abdulaziz City for Science and Technology (KACST)

Co-organizers:

Zhejiang University of Technology
Global Waste-to-Energy Research and Technology Council (WtERT®)
International Consultant Committee of Waste to Energy (ICCWtE)

Contact:

For further information and application submission, contact: Miss Ruoyu Ling: lingruoyu@zju.edu.cn

Video Gallery:

Experience the Legacy of the WtE Workshop (2016–2024)

- Highlights from Past Editions from 2016 to 2023: <https://youtu.be/aJN08ijQLMU>
- 2024 Edition Review: https://youtu.be/_Yy46N7E7vk