16th IIR-Gustav Lorentzen Conference on Natural Refrigerants

August 11–14, 2024

University of Maryland • College Park, Maryland, USA

The Gustav Lorentzen Conference is a globally important meeting where the latest progress in research and development of alternative natural refrigerants is discussed.

The conference contributes to bringing forward solutions compliant with the phase-down prescribed by the Kigali amendment to the Montreal Protocol. We explore innovations based on natural working fluids for applications within refrigeration, air conditioning, heat pumps and heat engines.

We have a long history of exciting conferences: Hanover 1994, Aarhus 1996, Oslo 1998, Purdue 2000, Guangzhou 2002, Glasgow 2004, Trondheim 2006, Copenhagen 2008, Sydney 2010, Delft 2012, Hangzhou 2014, Edinburgh 2016, Valencia 2018, Kyoto 2020, and Trondheim 2022.

Who Should Attend

- Senior representatives of engineering, marketing and product development companies
- Innovation leaders
- Professors, researchers, teachers, and students
- Material and system designers
- Professional engineers
- Production and operation managers
- Policy makers

IIF IIR

CENTER FOR ENVIRONMENTAL ENERGY ENGINEERING

Register at ceee.umd.edu/gl2024 | Questions? Contact us at gl2024@umd.edu

Conference Format

Welcome reception, conference banquet, closing ceremony

Plenary sessions with distinguished speakers

Keynote presentations

Oral presentations and posters

Panel discussions

Technical tours

Important Dates

NOVEMBER 1, 2023 | **Abstracts Open**

JANUARY 2, 2024 | **Early bird Registration Opens**

JANUARY 31, 2024 | **Abstracts Due**

FEBRUARY 15, 2024 | **Decisions on Abstracts**

APRIL 1, 2024 | **Manuscripts Due**

APRIL 30, 2024 | **Review Decisions**

MAY 10, 2024 | **Regular Registration Opens**

JUNE 10, 2024 | **Preliminary Program Published**

JULY 1, 2024 | **Final Manuscripts Due**

AUGUST 9, 2024 | **Registration Closes**

AUGUST 11, 2024 | **Welcome Reception**

AUGUST 13, 2024 | **Conference Banquet**

AUGUST 14, 2024 | **Conference Closing**

AUGUST 14, 2024 | **Technical Tours**

Themes

THERMOPHYSICAL PROPERTIES: Natural working fluids, lubricants, and mixtures

TRANSPORT PHENOMENON: Boiling, condensation, gas-cooling, thermo-hydraulic characterization

COMPONENTS: Heat exchangers, compressors, ejectors, novel designs

SYSTEMS: Air-conditioning and heat pumps

SYSTEMS: Refrigeration and cryogenics

SYSTEMS: Power and combined/cogeneration cycles

SYSTEMS: General, efficiency improvement, process and cycle configurations, thermal storage integration

SYSTEM SAFETY: Design for flammable, toxic, and high pressure systems, risk analysis and mitigation

CONTROLS: Conventional & optimal control, MPC, AI/ML-based controls

LIFE CYCLE ANALYSIS: LCA, LCCP, TEWI

Accommodations

The Hotel at The University of Maryland
7777 Baltimore Ave, College Park, MD 20740 USA
Tel.: +1 (301) 277-7777

Cambria in College Park
8321 Baltimore Ave, College Park, MD 20740 USA
Tel.: +1 (301) 615-9889

Room blocks for these two hotels nearest to campus will open when registration opens. For information on other area hotels, visit the University of Maryland Visitor Website.

Transportation

By plane: The airports nearest to College Park are Baltimore/Washington International (25 miles/40 km), Reagan National (16 miles/26 km) and Dulles International Airport (37 miles/60km).

By train: Amtrak has services to Union Station train station in Washington, DC (8 miles/14 km). By Metro: The light rail Metro train has a stop in College Park, with access from Union Station train station and Reagan National airport.

Shuttle service is provided from the College Park metro station to campus.

Organizing Committee

Dr. Yunho Hwang, Co-Director,
Center for Environmental Energy Engineering, University of Maryland

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Center for Environmental Energy Engineering, University of Maryland

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