جامعة الملك عبدالله للعلوم والتقنية
King Abdullah University of Science and Technology

Clean Combustion Research Center

KAUST RESEARCH CONFERENCE

Hydrogen-Based Mobility and Power

October 23-26, 2022

Building 19, Hall 1 & 2
KAUST, Thuwal, Saudi Arabia

AGENDA

ccrc.kaust.edu.sa/conference-2022

This event is organized by the Clean Combustion Research Center with financial support from the King Abdullah University of Science and Technology (KAUST)'s VPR Office

SCAN ME

Monday, October 24

08:00 AM	Breakfast and Registration
	Conference Welcome and Opening Remarks
08:30 AM	KAUST Vice-President for Research
08:45 AM	Mani Sarathy, Associate Director of the CCRC and Professor of CE, KAUST
	Land Mobility Session 1
09:00 AM	Helmut Eichlseder
	Hydrogen IC Engines in On- and Off Road Applications - Opportunities and Challenges
09:30 AM	Riccardo Scarcelli
	Computational Modeling of Low-carbon Fuels Combustion for Propulsion and Power
10:00 AM	Coffee Break
10:30 AM	Erik Schuenemann
	Hydrogen Engine Powertrains for Future Mobility
11:00 AM	Ilker Guler
	Effect Of Different Charging Concepts on Transient and Altitude Performance of Hydrogen Fueled Internal Combustion Engines
11:30 AM	Penny Atkins
	Hydrogen Engines to Decarbonise Heavy Duty Vehicles and Machines
12:00 PM	Group Photo
12:30 PM	Lunch
	Sea Mobility Session
2:00 PM	Mani Sarathy
	Hydrogen and e-Fuel Solutions for the Second Energy Transition: A Roadmap to Scalable Economies at NEOM
2:30 PM	Morgan Fanberg
3:00 PM	Coffee Break
	Simulation and Testing Session
3:30 PM	Ossi Kaario
	Large-eddy Simulation of Tri-fuel Combustion: Spray Assisted Ignition of Methanol-Hydrogen Blends
4:00 PM	Franz Hofer
	Technologies and Trends in H2 Combustion Engines
4:15 PM	Johannes Kregar
	Implications on the Test Facilities, Systems and Equipment
4:30 PM	Core Lab Tour

Tuesday, October 25

08:30 AM	Breakfast
	Land Mobility Session 2
09:00 AM	Michael Brear
	Autoignition, Knock, Detonation and the Octane Rating of Hydrogen
09:30 AM	Dong Han
	Explosion Limits and Energy Conversion in Flames of Hydrogen/Ammonia Mixtures
10:00 AM	Sam Cockerill
	Development of a CNG/H2 Flex-fuel Linear Generator for Heavy Duty Hybrid Power Generation

10:30 AM	Steve Woolley
11:00 AM	Coffee Break
	Power Session 1
11:30 AM	Jong Hee Han
	Korea's Hydrogen Economy : Current Status and Opportunity
12:00 PM	Jack Brouwer
	Hydrogen System Dynamics for Energy Sustainability
12:30 PM	Hisashi Nakamura
	Chemical Kinetic and Flame Studies for Boilers and High-temperature Air Combustion Furnaces with Ammonia
1:00 PM	Lunch
2:00 PM	CCRC Building Lab Tour 1
3:15 PM	Coffee Break
4:00 PM	CCRC Building Lab Tour 2
5:00 PM	Reception and Poster Session at KAUST Library, Building 12

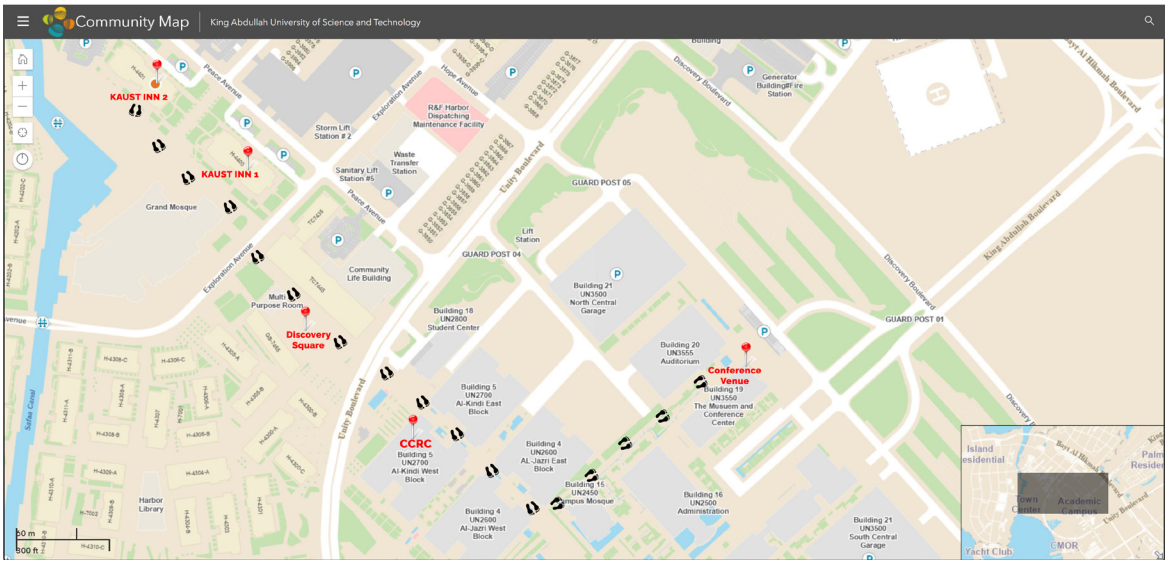
Wednesday, October 26

08:30 AM	Breakfast
	Manufacture / Storage/ Distribution Session
09:00 AM	Richard Pearson
	Hydrogen in Future Mobility – Scenarios and Sectors
09:30 AM	Huabin Zhang
	Single Atom Catalysis toward Hydrogen Evolution
10:00 AM	Aqil Jamal
	Low-Carbon Hydrogen Technologies for a Net-Zero World
10:30 AM	Coffee Break
11:00 AM	Cafer Yavuz
	Syngas Economy with Green Hydrogen for Rapid Decarbonization of Fuels and Chemicals
11:30 AM	Murray Thomson
	Hydrogen Production via Methane Pyrolysis
12:00 PM	Michelle Schoonover
	Pushing for Zero Carbon Hydrogen
12:30 PM	Lunch
	Power Session 2
1:30 PM	Majed Toqan
	The Development of an Ammonia Based Gas Turbine Engine
2:00 PM	Jeffrey Goldmeer
	The Use of Hydrogen for Stationary Power Generation
2:30 PM	Mehdi Jafarian
	Hydrogen from Heavy Fuel Oils
	Conference Closing Remarks
3:00 PM	William Roberts, Director of the Clean Combustion Research Center

Additional Information

Location:

The conference will take place at Building 19, Hall 1 & 2.
The Poster Session will be held at Library, Seaview Area.



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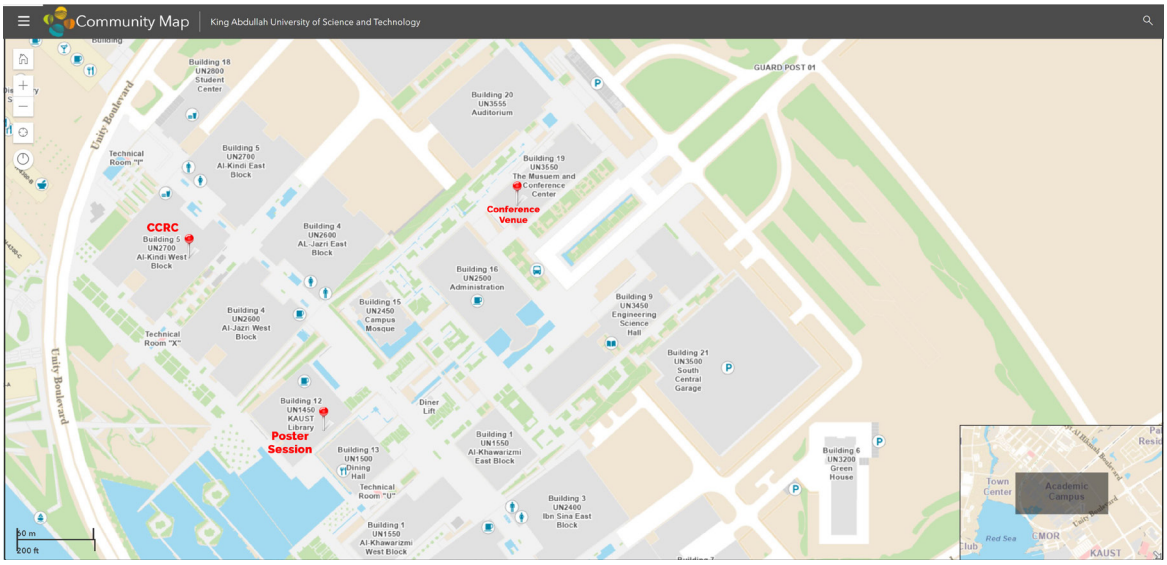

The emergency number: +966 (12) 808 0911 from a mobile phone or 911 from KAUST landline

The Wi-Fi: KAUST-Guest

On demand bus: Operates 7-days per week during non-peak hours. To use the on-demand bus, download **the Rekab app** available on Google Play Store or Apple App Store.

Workdays from 9:30 A.M. to 4:00 P.M. and 7:00 P.M. to 01:00 A.M.
Weekends/Holidays from 6:00 A.M. to 01:00 A.M

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