

INVITATION



10th IPHE Education & Outreach Event

April 26, 2017

Technische Universität Hamburg / Hamburg University of Technology

The International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE, <u>www.iphe.net</u>) is an international inter-governmental partnership whose objective is to accelerate the transition to clean and efficient energy and mobility systems using fuel cells and hydrogen (FCH) technologies. It provides a forum for sharing information on policies and technology status, as well as on initiatives, codes, and standards to accelerate the cost-effective transition to the use of FCH globally. IPHE also informs stakeholders and the public on the benefits of, and challenges to, establishing widespread commercial FCH systems in the economy. The IPHE's 18 country and 1 regional (EU) partners have committed to collaborating to advance the commercialization FCH technologies in an effort to enhance the security and efficiency of their energy systems, to help address environmental objectives, and, to grow their economies.

An IPHE *Education & Outreach Event* is organized in conjunction with the semi-annual meeting of the IPHE Steering Committee. This half-day event provides an opportunity for students to meet international experts and IPHE delegates, and, to exchange views and information on the developments in FCH policies and technologies including an overview of the current technical and market status of FCH in different countries. It also offers the opportunity to learn about research and potential employment perspectives. The event language will be English.

Date:	Wednesday, April 26, 2017
Time:	08:30 – 14:00 (Lunch included)
Venue:	Technische Universität Hamburg / Hamburg University of Technology Am Schwarzenberg-Campus 5 / Gebäude/Building H / Raum/Room H0.16 D-21073 Hamburg
Agenda:	Attached below

Please register by April 20th, 2017, at <u>iue@tuhh.de</u> if you wish to attend. Also, please indicate if you like to take a test drive in a fuel cell electric vehicle (FCEV). The hydrogen fuelled FCEVs will be located in front of the lesson hall. This event including lunch and a test ride is free of charge.

We are looking forward seeing you in Hamburg.

Prof. Dr.-Ing. Martin Kaltschmitt Hamburg University of Technology (TUHH)

Tim Karlsson IPHE Executive Director

Prof. Dr. Jürgen Garche Chair of IPHE Educational Working Group





Overview

The IPHE welcomes students to meet international delegates, learn about the latest developments in fuel cells and hydrogen (FCH), exchange views, and ask questions about FCH policies. The event will provide insights into developments in leading countries, and the latest progress in Germany.

Agenda

08:30 Registration and Coffee

09:00 Welcome and Introductions:

- Andreas TIMM-GIEL, Vice-President of TUHH (10 min)
- Bernard FROIS (IPHE Chair) (5 min)
- 09:15 Session 1: International Perspective on Fuel Cells and Hydrogen (FCH) Developments (10min presentation, 5min for Q&As)
 - > Tim KARLSSON, Executive Director, IPHE: Overview of the IPHE
 - Michael MILLS, Energy Efficiency and Renewable Energy Office, Department of Energy, USA: Overview of FCH Developments in the USA
 - Masataka KADOWAKI, Chief Officer, Fuel Cell & Hydrogen Technology Group, New Energy and Industrial Technology Development Organization, Japan: Overview of FCH Developments in Japan
 - Katarzyna DRABICKA, Advanced Energy Production, Directorate General for Research & Innovation, European Commission: Overview of FCH Developments from an EC Perspective
 - Laurent ANTONI, President, Research Grouping of the FCH Joint Undertaking: European Research Roadmap for FCH

10:30 Coffee Break

10:45 Session 2: National Overview on FCH Developments (10min presentation, 5min for Q&As)

- Klaus BONHOFF, National Organization Hydrogen Technology, Germany: Overview of FCH Developments in Germany
- Thomas KLASSEN, Helmut-Schmidt-Universität: Hydrogen Storage New Concepts and innovative Approaches
- Martin DORNHEIM, Helmholtz-Zentrum Geesthacht Center for Materials and Coastal Research: Innovative Materials for Hydrogen Storage
- Christoph BALZER, Jürgen LOUIS, Shell Global Solutions: Industrial Activities in Hydrogen Vision and Reality
- Oliver WEINMANN, Vattenfall Deutschland: Hydrogen Refueling Station at HafenCity in Hamburg – Experiences and Findings

Extended Questions & Answers (30 min)

12:30 Session 3: IPHE – DWV Award Ceremony

- Award ceremony for top PhD and Master thesis
- Short overview (5 min) of the top PhD thesis
- > Short overview (5 min) of the top Master thesis

13:00 Session 4: Lunch and Informal Discussion with Students

- Informal Discussions with Students
- Students FC Electric Vehicle Drive (Daimler FC B-Klasse, Toyota Mirai, Hyundai x35)
- 14:00 Close of Education & Outreach Event