The Sirindhorn International Thai-German Graduate School of Engineering
King Mongkut's University of Technology North Bangkok
1518 Pracharat 1 Road, Wongsawang, Bangsue, Bangkok 10800, Thailand
Phone: +66 2555 2000 ext 2907
Fax: +66 2555 2937
www.tggs.kmutnb.ac.th

Registration Form

TGGS Seminar

"eFuels, Hydrogen or Batteries – Which Technology for Different Mobility Application?"

Thursday 23 February 2023, 08.30 – 16.30 (UTC+7 Thai time)

Aachen Conference Room, 3rd floor, TGGS Building, KMUTNB

Date.....

Name – Surname.....

Organization.....

Phone Number.....E-mail.....

Paid by 17 February 2023 (Early-bird)		Paid after 17 February 2023	
- On-site	3,500 Baht per person	- On-site	4,500 Baht per person
- On-line	3,000 Baht per person	- On-line	4,000 Baht per person

☐ On-site ☐ On-line

Details for receipt (in Thai or English)

Organization.....

TAX ID.....

Address.....

.....

Seat Reservation

Bank transfer to Kasikorn Bank, Bang-Po Branch (บางโพ)

Account: King Mongkut's University of Technology North Bangkok

Saving Account Number: 033-1-00226-7

** **Important:** Please send your transfer slip within the same day of the transaction in order to expedite the process of issueing the receipt. Please kindly reserve your seat in advance and send the transaction slip via e-mail to:

Ms. Navarat Charoensiri

E-mail: navarat.c@tggs.kmutnb.ac.th

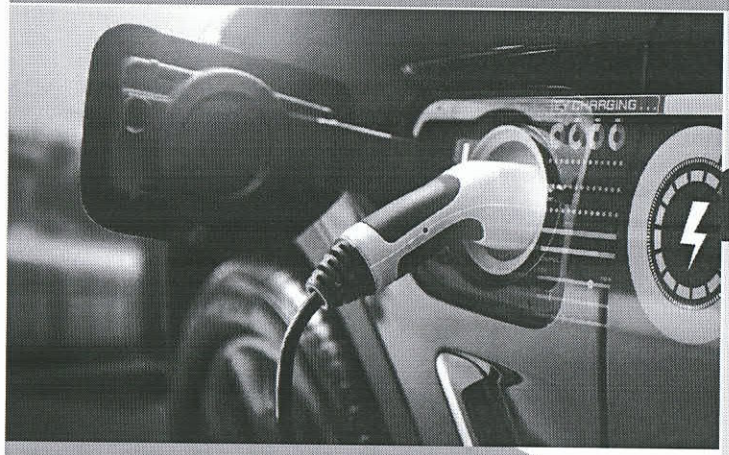
Tel. +66 2555 2907, +66 2555 2938

The unpaid reservation will be void after 5 days

** On-site participants will obtain a paper certificate after the successful participation.

** On-line participants will obtain an electronics certificate after the successful participation.

TGGS Administration Office

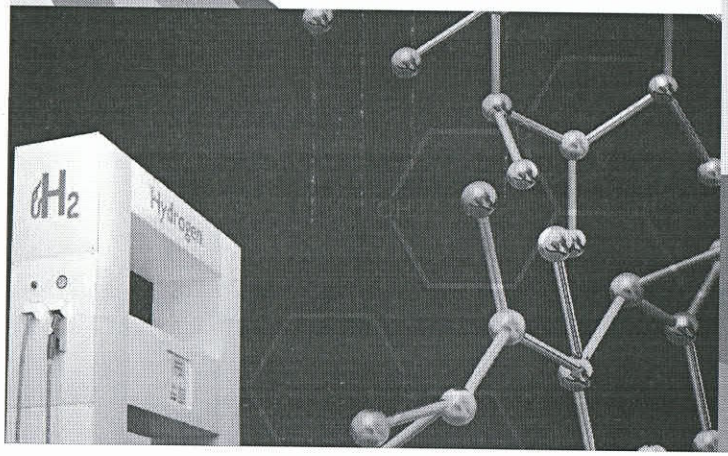


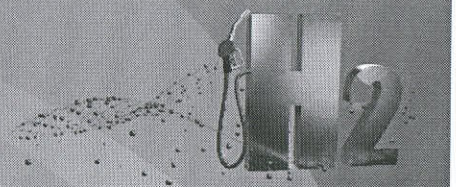
Speaker:
Prof. Dr. rer. nat. Dirk Uwe Sauer
RWTH Aachen University, Germany

Content

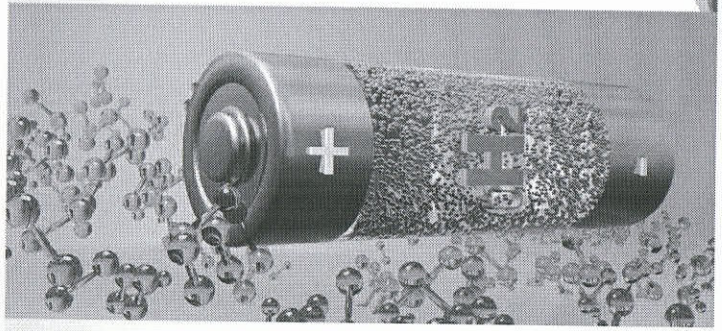
In order to achieve the CO2 reduction necessary to slow and then limit the global temperature rise, the mobility sector must also become CO2 neutral. Various technologies are available for this. In addition to battery-electric vehicles, propulsion systems using hydrogen via fuel cells or hydrogen combustion engines and eFuels or biofuels are also being discussed. eFuels are produced from hydrogen as a basic material and can then be processed, for example, with carbon from CO2 into fuels that are chemically very similar to petrol and diesel or also with nitrogen to ammonia into liquid fuels.

All forms of propulsion have advantages and disadvantages. Important factors are, for example, energy densities and thus weight, efficiency chains and thus overall efficiency, storability and the infrastructures needed to produce and distribute the energy sources.

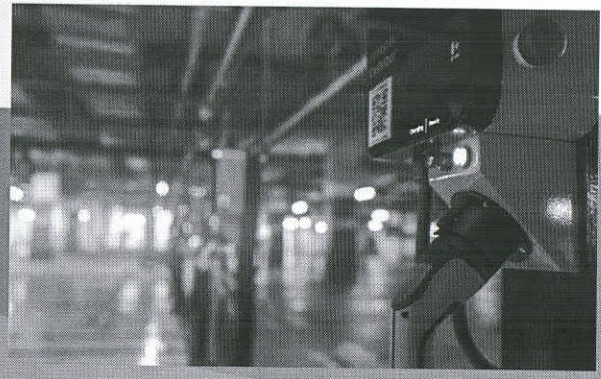




At the same time, different application areas of mobility have very different requirements and boundary conditions. Passenger vehicles, trucks for distribution and long-distance operation, buses and trains for inner-city traffic and the connection of cities, ships on rivers and seas, aircraft for short distances and intercontinental travel, construction or agricultural machinery must each be analysed in relation to the suitability of the different energy carriers, for which the questions of infrastructure, for example, again play an important role.



The seminar will discuss the state of the art of the various technologies, the development of global markets, international supply chains and transport costs. For this purpose, the options for the different mobility sectors will be systematically analysed and predictions for the technologies likely to dominate in the coming years will be derived from this.



A TGGS Seminar

eFuels, Hydrogen or Batteries

Which Technology for Different Mobility Application?

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The Sirindhorn International Thai-German Graduate School of Engineering (TGGS)

King Monkut's University of Technology North Bangkok

Speaker:
Prof. Dr. rer. nat. Dirk Uwe Sauer
RWTH Aachen University, Germany

1989-1994	Study at University of Darmstadt Dipl. Phys. (physics)
1994-2003	Research scientist and senior scientist at Fraunhofer Institute for Solar Energy Systems ISE, Freiburg, Germany
2000-2003	Head of group "Storage systems"
2001-2003	Head of interdisciplinary working group on "Off-grid and rural Electrification"
2001-2003	Managing director of "Club for rural electrification"
2003	Ph.D. at University of Ulm
2003	Appointment for Junior-Professorship at RWTH Aachen University for "Electrochemical Energy Conversion and Storage Systems"
2009	Appointment for university professorship W2 at RWTH Aachen University for "Electrochemical Energy Conversion and Storage Systems"
2010	Founder of Spin-off company "P3 energy & storage GmbH" for testing and consultancy service in area of battery and power grid
2012	Appointment for university professorship W3 at RWTH Aachen University for "Electrochemical Energy Conversion and Storage Systems"
2015	Founder of Spin-off company "BatterrieIngenieure GmbH" for testing, development and consultancy service for battery systems
2015	Founder of Spin-off company "e-Busplan GmbH" for testing, for planning and implementation of public transport with electric busses
Present	- Full professor at RWTH-Aachen University with about 70 research associates - Member of scientific advisory board of the German national ministry of science for the "Energiewende"

Maximum Attendees:
On-site 50 seats
On-line unlimited

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Registration

Professional and interested audiences are also welcome to join this event.
Scan QR code for Registration

Contct for More Information.

Ms. Navarat Charoensiri
navarat.c@tggs.kmutnb.ac.th
Phone: 0 2555 2907
0 2555 2938

Organizer

The Sirindhorn International Thai-German Graduate School of Engineering (TGGS)
KMUTNB, Thailand

Electrochemical Energy Conversion and Storage Systems Group, Institute for Power Electronics and Electrical Drives (ISEA)
RWTH Aachen University, Germany

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The Sirindhorn International TGGS Thai-German Graduate School of Engineering

KMUTNB INVENTION TO INNOVATION

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eFuels, Hydrogen or Batteries

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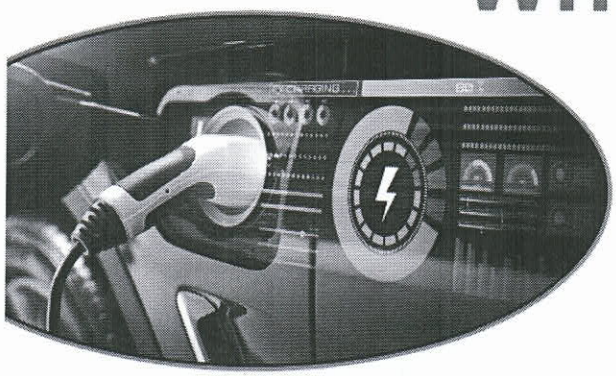

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