

TECHNOLOGY BRIEFING

# Smart Energy Applied Solutions

Wednesday, November 11, 2020, from 13:30 to 18:00  
Empa, Überlandstrasse 129, 8600 Dübendorf

Online registration: [www.empa-akademie.ch/technology](http://www.empa-akademie.ch/technology)



## Smart Energy Applied Solutions

Our energy supply is currently facing fundamental changes. Sustainable and renewable energy sources such as wind and solar energy are replacing the widely unpopular and climate-damaging fossil fuels. As we move towards a more sustainable path, new systems are required to keep up with our energy needs.

The smooth integration of renewable energy sources, efficient storage solutions – long- and short-term –, as well as a dynamic interplay of different technologies are key to achieve a post-fossil energy future. This year's Technology Briefing, co-organized by the research institutes CSEM, Empa and PSI, will present practical digital solutions for sustainable and promising energy systems.

## About the Technology Briefing

The conference series aims at informing our industry and business partners about pressing issues of practical relevance. Speakers representing CSEM, Empa, PSI and industry will cover a well-balanced and practice-oriented overview of the latest technologies. The event also provides a platform for knowledge sharing and exchange of experiences, allowing the identification of potential cooperation and further innovation.

## Program *Presentation in English (E) or in German (D)*

- 13:30 **Welcome coffee**
- 14:00 **Welcome**  
Dr. Brigitte Buchmann, Empa, Head of Department Mobility, Energy and Environment, Member of Empa's Board of Directors
- 14:10 **Ökologische Vor- und Nachteile der Elektrifizierung im Verkehr (D)**  
Christian Bauer, scientist at the Laboratory for Energy Systems Analysis, PSI
- 14:25 **Data science for renewables: forecasting and asset management (E)**  
Pierre-Jean Alet, Senior Expert Photovoltaics CSEM
- 14:40 **PV self-consumption at its economic optimum – managing heat pumps and electric vehicles (E)**  
Andreas Hutter, Sector Head Photovoltaics CSEM and Alain Aerni, CEO Soleco AG
- 15:05 **Coffee break**
- 15:35 **Wasserstoff/Sauerstoff-Brennstoffzellen für Energiespeicherung und Regelleistung – Einblicke in aktuelle Entwicklungen (D)**  
Uwe Hannesen, Engineering Manager – Fuel Cell Systems, Clean Energy Systems, Plastic Omnium
- 16:00 **Energy savings thanks to data predictive control – an IoT based retrofit solution (E)**  
Benjamin Huber, Research Associate UESL Lab Empa
- 16:15 **Demand side flexibilities for collaborative smart grids (E)**  
Philipp Heer, Deputy Head UESL Lab Empa and Till Richter, Head Digital Twin, aliunid AG
- 16:40 **Wrap-up, Closing**  
Dr. Brigitte Buchmann, Empa
- 16:50 **Apero**