SCCER-Mobility 2nd Annual Conference

Wednesday, 26 August 2015 – ETH Zürich, Turbinenhalle

Poster Session

Capacity Area A1

Nr.	Title	Authors
1	**Development and characterization of a novel Li-ion battery pack for the Swiss Federal Railways (SBB)**	**Christian Vögtli, Andrea Vezzini** *BFH-CSEM Energy Storage Research Center* *ESReC, Institute for Energy and Mobility Research* *Bern University of Applied Sciences*
2	**Increasing the energy efficiency of the rolling stock of SBB: goals, challenges and opportunities**	**Ueli Kramer, Andrea Vezzini** *BFH-CSEM Energy Storage Research Center* *ESReC, Institute for Energy and Mobility Research* *Bern University of Applied Sciences*
3	**Test Rigs for Thermal Cell- / Module-Evaluation of Lithium-Ion Batteries for E- & Hybrid Vehicles**	**Dr.-Ing. Gerhard Rizzo, M.Eng. Rouven Christen, BSc FHO Alfred Gadola, Prof. Dr.-Ing. Max Stöck** *Interstaatliche Hochschule für Technik Buchs NTB*
4	**Comparison of High Power Non-Isolated Multilevel DC-DC: Converters for Medium-Voltage Battery Storage Applications**	**Milos Stojadinovic, Jürgen Biela** *Laboratory for High Power Electronic Systems,* *ETH Zürich*
5	**Active Balancing Battery-Management-System für Stromer**	**Yassin Kelay, Andrea Vezzini** *BFH-CSEM Energy Storage Research Center* *ESReC, Institute for Energy and Mobility Research,* *Bern University of Applied Sciences*
6	**Projekt UFCEV (Ultra-fast charging of electric vehicles)** **100kWh-Lithium-Eisenphosphat-Speicher**	**Grzegorz Dziechciaruk, Patrick Haldi, Andrea Vezzini** *BFH-CSEM Energy Storage Research Center* *ESReC, Institute for Energy and Mobility Research* *Bern University of Applied Sciences*
7	**Systems and Components for E-Mobility**	**Patrick Habermacher, Vinzenz V. Härri** *HSLU Luzern*
8	**Lithium-ion battery based energy storage and battery management systems for electric and hybrid vehicles**	**Alejandro Santis, Andrea Vezzini** *BFH-CSEM Energy Storage Research Center* *ESReC, Institute for Energy and Mobility Research* *Bern University of Applied Sciences*

Capacity Area A2

Nr.	Title	Authors
10	**HD gas engine**	**Jakub Rojewski** *EMPA, Automotive Powertrain Technologies*
11	**A novel Monte Carlo scheme for liquid water distribution in gas diffusion layers of PEFCs**	**Luigino Capone, Jaka Dujc and Jürgen O. Schumacher** *Institute of Computational Physics, Zurich University of Applied Sciences, Winterthur* **Adrien Lamibrac, Felix Büchi** *Paul Scherrer Institut, Villigen*
12	**3D simulation of membrane electrode assembly with hydrophilic treated GDL**	**Jaka Dujc, Luigino Capone, Jürgen O. Schumacher,** *Institute of Computational Physics, Zurich University of Applied Sciences, Winterthur*, **Magali Cochet, Antoni Forner Cuenca, Pierre Boillat** *Paul Scherrer Institut, Villigen*
13	**SwissTrolley+**	**Andreas Ritter, Philipp Elbert and Christopher Onder** *Institute for Dynamic Systems and Control (IDSC), ETH Zurich*
14	**Aladin - Highly efficient and near zero-emission micro CHP gas engine appropriate for grid balancing**	**Philipp Vögelin, Christian Schürch, Peter Obrecht and Konstantinos Boulouchos** *Laboratorium für Aerothermochemie und Verbrennungssysteme (LAV), ETH Zurich* **Andreas Ritter, Severin Hänggi and Christopher Onder** *Institute for Dynamic Systems and Control (IDSC), ETH Zurich*
15	**Dual Fuel Engine - Thermal Management for small Diesel ignited Natural Gas Engines**	**R. Hutter, F. Zurbriggen, P. Elbert, Ch. Onder** *Institute for Dynamic Systems and Control (IDSC), ETH Zurich*
16	**Modified GDL for Improved Water Management in PEFC**	**A. Lamibrac, A. Forner-Cuenca, V. Manzi-Orezzoli, F. Marone, P. Boilat, F.N. Büchi,** *Paul Scherrer Institut Villigen*
17	**Neutron imaging characterization of water and heat transport in a evaporative cooled fuel cell**	**M. Cochet, A. Forner-Cuenca, D. Scheuble, V. Manzi-Orezzoli, J. Biesdorf, P. Boillat** *Paul Scherrer Institut Villigen*
18	**Vehicle investigation on Hydrogen/Compressed Natural Gas mixtures (HCNG, 2 Vol.% H2)**	**T. Bütler, M. Huber and Ch. Bach** *Empa, Automotive Powertrain Technologies Laboratory*
19	**MOVE: The Future Mobility Demonstrator**	**U. Cabalzar, B. Buchmann, Ch. Bach and M. Brügger** *Empa, Automotive Powertrain Technologies Laboratory*

Capacity Area A3

Capacity Area B1

Capacity Area B2

Nr.	Title	Authors
33	**e-mobiliTI - Potentials and implications of the transition to electric mobility. Insights from a living lab in Southern Switzerland**	**Roman Rudel, Francesca Cellina, Albedo Bettini** *University of Applied Sciences and Arts of Southern Switzerland SUPSI, Institute for Applied Sustainability to the Built Environment (ISAAC)*
34	**Transformation of Mobility.** **Context Perspective B2.4**	**Merja Hoppe, Alberto Castro** *University of Applied Sciences ZHAW*
35	**Strategic Guidance Project: an overview**	**Lukas Küng, Gil Georges** *Aerothermochemistry and Combustion Systems Laboratory, ETH Zürich*
36	**Environmental and Cost Assessment of Motorcycles**	**Brian Cox, Chris Mutel** *Paul Scherrer Institut – LEA, Villigen*
37	**Energy Economics Modelling of the Swiss Transport Sector**	**Rashid Waraich, Kannan Ramachandran** *Paul Scherrer Institut – LEA, Villigen*
38	***GoEco!* A smartphone application leveraging eco-feedback and gamification techniques to nudge sustainable personal mobility styles**	**Francesca Cellina, Vanessa de Luca, Nikolett Kovacs, Andrea E. Rizzoli, Roman Rudel** *SUPSI (ISAAC)* **Dominik Bucher, Paul Weiser, Martin Raubal** *Institute of Cartography and Geoinformation, Chair of Geoinformation-Engineering, ETH Zürich*
39	**Environmental Assessment of Airplanes**	**Brian Cox, Wojciech Jemiolo and Chris Mutel** *Paul Scherrer Institut – LEA, Villigen*

Diverse

Nr.	Title	Authors
40	**Fast e-Fuelling Stations** **(bei B1)**	**Heron Vrubel, Véronique Amstutz, Pekka Peljo, Frédéric Gumy, C. R. Dennison, Alberto Battistel, Tong Wu and Hubert H. Girault** *EPFL Valais, LEPA*
41	**Decreasing used vehicle's survival rate with green taxation: The case of Obwalden, Switzerland"** **(bei B2)**	**Anna Alberini, Markus Bareit, Massimo Filippini and Adan L. Martinez-Cruz** *ETH Zürich, Centre for Energy Policy and Economics (CEPE)*
42	**Batterikoura – granular "caviar" battery project** **(bei A1)**	**Sergei Startchik** *Batterikoura, Geneva*