

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 Vöggtli, Andrea Vezzini <i>BFH-CSEM Energy Storage Research Center ESReC, Institute for Energy and Mobility Research Bern University of Applied Sciences</i>
2	Increasing the energy efficiency of the rolling stock of SBB: goals, challenges and opportunities	Ueli Kramer, Andrea Vezzini <i>BFH-CSEM Energy Storage Research Center ESReC, Institute for Energy and Mobility Research Bern University of Applied Sciences</i>
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 <i>Interstaatliche Hochschule für Technik Buchs NTB</i>
4	Comparison of High Power Non-Isolated Multilevel DC-DC: Converters for Medium-Voltage Battery Storage Applications	Milos Stojadinovic, Jürgen Biela <i>Laboratory for High Power Electronic Systems, ETH Zürich</i>
5	Active Balancing Battery-Management-System für Stromer	Yassin Kelay, Andrea Vezzini <i>BFH-CSEM Energy Storage Research Center ESReC, Institute for Energy and Mobility Research, Bern University of Applied Sciences</i>
6	Projekt UFCEV (Ultra-fast charging of electric vehicles) 100kWh-Lithium-Eisenphosphat-Speicher	Grzegorz Dziechciaruk, Patrick Haldi, Andrea Vezzini <i>BFH-CSEM Energy Storage Research Center ESReC, Institute for Energy and Mobility Research Bern University of Applied Sciences</i>
7	Systems and Components for E-Mobility	Patrick Habermacher, Vinzenz V. Härri <i>HSLU Luzern</i>
8	Lithium-ion battery based energy storage and battery management systems for electric and hybrid vehicles	Alejandro Santis, Andrea Vezzini <i>BFH-CSEM Energy Storage Research Center ESReC, Institute for Energy and Mobility Research Bern University of Applied Sciences</i>

Capacity Area A2

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

Capacity Area A3

Nr.	Title	Authors
20	Non-propulsive Energy Demand of Passenger Cars	Gil Georges <i>Aerothermochemistry and Combustion Systems Laboratory, ETH Zürich</i>
21	Bioinspired Composites by Vacuum Assisted Magnetic Alignment	Madeleine Grossman <i>ETH Zürich</i>
22	Composites reinforced via mechanical interlocking with surface roughened platelets"	Rafael Libanori, Davide Carneli, Nuria Rothfuchs, Marco R. Binelli and André R. Studart <i>ETH Zürich, Department of Materials</i>
23	Development of Melt Thermoplastic Resin Transfer Moulding	Damiano Salvatori, Sara Dalle Vacche, Maxime Cattin, Véronique Michaud <i>Laboratoire de Technologie des Composites et Polymères (LTC), EPFL</i>
24	Bicomponent Fibers for Thermoplastic Composites: Towards a New Intermediate Material for Rapid Stamp Forming	Christoph Schneeberger, Joanna C. H. Wong, and Paolo Ermanni <i>Laboratory of Composite Materials and Adaptive Structures, ETH Zürich</i>
25	Processing of Flax Fibre Thermoplastic Composites	Wilhelm Woigk and Kunal Masania <i>Institute of polymer engineering (IKT), FHNW</i>
26	Transverse impregnation of dry fabrics with thermoplastic melts	Julia Studer, Clemens Dransfeld <i>Institute of Polymer Engineering (IKT), FHNW</i>
27	Minimization of vehicular energy demand: Capacity area A3 activities	<i>Introduction</i>

Capacity Area B1

Nr.	Title	Authors
28	Integration of new Urban Transport	Olivier Duvanel, Vinzenz V. Härrli <i>HSLU Luzern</i>
29	Environmental Impacts from Housing and Land-Based Mobility Demand of Households on a Regional Level	Andreas Froemelt and Stefanie Hellweg <i>Chair of Ecological Systems Design, Institute of Environmental Engineering, ETH Zurich</i>
30	Point, Row and Block	Joachim Huber, Michael Walczak, Jonas Haldemann <i>BFH Burgdorf</i>
31	Energy-efficient speed profile optimization of freight trains from onboard monitored data	Valerio De Martinis, Ulrich A. Weidmann <i>ETH Zürich</i>
32	Matching Complementary Transport Needs	Dominik Bucher, Paul Weiser, Simon Scheider, Martin Raubal <i>Institute of Cartography and Geoinformation, Chair of Geoinformation-Engineering, ETH Zürich</i>

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 <i>University of Applied Sciences and Arts of Southern Switzerland SUPSI, Institute for Applied Sustainability to the Built Environment (ISAAC)</i>
34	Transformation of Mobility. Context Perspective B2.4	Merja Hoppe, Alberto Castro <i>University of Applied Sciences ZHAW</i>
35	Strategic Guidance Project: an overview	Lukas Küng, Gil Georges <i>Aerothermochemistry and Combustion Systems Laboratory, ETH Zürich</i>
36	Environmental and Cost Assessment of Motorcycles	Brian Cox, Chris Mutel <i>Paul Scherrer Institut – LEA, Villigen</i>
37	Energy Economics Modelling of the Swiss Transport Sector	Rashid Waraich, Kannan Ramachandran <i>Paul Scherrer Institut – LEA, Villigen</i>
38	<i>GoEco!</i> 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 <i>SUPSI (ISAAC)</i> Dominik Bucher, Paul Weiser, Martin Raubal <i>Institute of Cartography and Geoinformation, Chair of Geoinformation-Engineering, ETH Zürich</i>
39	Environmental Assessment of Airplanes	Brian Cox, Wojciech Jemiolo and Chris Mutel <i>Paul Scherrer Institut – LEA, Villigen</i>

Diverse

Nr.	Title	Authors
40	Fast e-Fuelling Stations (bei B1)	Heron Vrabel, Véronique Amstutz, Pekka Peljo, Frédéric Gummy, C. R. Dennison, Alberto Battistel, Tong Wu and Hubert H. Girault <i>EPFL Valais, LEPA</i>
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 <i>ETH Zürich, Centre for Energy Policy and Economics (CEPE)</i>
42	Batterikoura – granular “caviar” battery project (bei A1)	Sergei Startchik <i>Batterikoura, Geneva</i>