

SCCER Mobility Seminars



Prof. A. Vezzini, BFH-CSEM ESReC / Prof. K. Boulouchos LAV-ETHZ

The Electric Vehicle is here (again)- And why it might stay this time!

Tuesday, 24 Mai 2016, 17.15 -18.30 pm at ETH Zürich
HG E 5 (Main Building, E-floor, room 5)

Abstract

The current momentum in the electrification of the traditional drivetrain in passenger cars as well as the growing number of pure electric driven vehicles fuels hope for a transition towards a more sustainable mobility. Unfortunately, the advent of electric vehicles has been announced before and failed on its promises. We have therefore to ask ourselves what is different this time, especially what progress has been made or can be expected in the near future to justify this new hype? The first presentation will focus on key technological innovations made in the last years as well as what can be expected in the field of electrical machines, power electronics and batteries.

The perspectives for an increasing electrification of the transport sector are influenced by recent technology advancements on hand but have also implications for the supply side of the required electricity. We will therefore in the second presentation briefly examine systemic implications of transport electrification through battery electric vehicle, plug-in hybrid electric vehicle technologies and possible paths to be taken with emphasis on Switzerland.

Prof. Dr. Andrea Vezzini is Professor for Industrial Power Electronics at Bern University of Applied Sciences. He is the Head of the BFH-CSEM Energy Storage Research Center (ESReC), one of the largest electrochemical storage technology research centers in Switzerland. Prof. Vezzini was visiting Professor at GM Advanced Technology Centre in 2003 and Distinguished Visiting Scientist at CSIRO Australia (Commonwealth Science and Industrial Research Organization) in 2007. Prof. Vezzini is also Chairman of the board and founding member of drivetek ag, a leading development house for high power efficient electric drives for automotive applications. He is also member of the board and founding member of Integrated Power Solutions AG, a company who develops lithium-ion battery systems for the material handling market. Since 2014, he is Deputy Head of the SCCER Mobility.

Prof. Konstantinos Boulouchos is Professor and Head of the Aerothermochemistry and Combustion Systems Laboratory at the Institute of Energy Technology at ETH Zurich. He has also served as Chairman of the Board of the Energy Science Center ETH Zürich from its foundation 2005 until 2011. In this capacity he was coordinating author of the "Energy Strategy for ETH Zürich" (2008) and "Energy Future for Switzerland" (2011). Konstantinos Boulouchos has won among others the Distinguished Paper Award in Colloquium New Technology Concepts from the Combustion Institute Pittsburgh and is a member of the Editorial Board of the Journal of Engine Research, of the Advisory Board of the Institute for Vehicle Technology of the German Aerospace Center (DLR) and the board of trustees of ProClim. Prof. Boulouchos is the Head of the SCCER Mobility.

To conclude, you are welcome to visit the exhibition organized by the ETH Formula Student Project. This exhibition will be hosted at ETH main Building Hall from 23 to 25 Mai. This seminar is organized by the [SCCER Mobility](#). We would appreciate your registration until **17 Mai 2016** using the [doodle link](#) or contacting fiorella.meyer@sccer.ethz.ch



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