



DIGITAL PROCEEDINGS – TABLE OF CONTENTS

All times in the session tables show Central European Times (CET), the ruby stripes above each session slot show the starting times of the sessions below in additional time zones.

03:00 New York // 05:00 Rio de Janeiro // 08:00 London // 13:30 New Delhi // 15:00 Jakarta // 16:00 Peking // 17:00 Tokio

SESSION 1: KEYNOTE SESSION

09:15 – 11:00 | 3 November 2020 | Session Chair: Thomas Ackermann (Energynautics, Germany)

09:15 – 10:35 Presentations (20min. each)

- **Integration of EVs & Batteries in the Grid - a German Perspective**
M. Puchta, B. Ernst (Fraunhofer IEE, Germany) (EMOB20-160)
- **Could EVs Threaten Power Systems and How we Can Fix it?**
A. Oudalov (Hitachi-Powergrids, Switzerland) (Emob-155)
- **Implication of Vehicle Electrification on U.S. Power Sector Transitions**
M. Muratori (National Renewable Energy Laboratory – NREL, United States) (EMOB20-13)
- **The Impacts of EV Charging Pattern Optimisation to Realise Renewable Energy-Based System**
Y. Yasuda (Kyoto University, Japan), H. Hamasaki (Deloitte Tohmatsu Consulting, Japan) (EMOB20-12)

10:35 – 11:00 Discussions

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SESSION 2: DISTRIBUTION GRID ASPECTS

11:15 – 12:35 | 3 November 2020 | Session Chair: Eckehard Tröster (Energynautics, Germany)

11:15 – 12:23 Presentations (17 min. each)

- **Infrastructure for Charging Electric Vehicles and Renewables – How Much Do We Need to Invest?**
K. Burges (RE-xpertise, Germany), K. Joerling, K. Steinbacher (Guidehouse Berlin, Germany), M. Tretschock, M. Greve (ef.ruhr, Germany) (EMOB20-62)
- **Mitigating the Impact of Fast Charging on Distribution Grids Using V2V Power Transfer: a Paris Case Study**
Y. Sehimi (Institut Vedecom | University of Lille, France), E. Suomalainen (Institut Vedecom, France), K. Almaksour (University of Lille, France), B. Robyns (University of Lille, France) (EMOB20-74)
- **NOVA Measures in Suburban Low Voltage Grids with an Inhomogeneous Distribution of Electric Vehicles**
H. Wagner, J. Wussow, B. Engel (TU Braunschweig - elenia, Germany) (EMOB20-10)
- **Measurement of Supraharmonic Emissions from Wind Turbines and Electric Vehicles in Power Systems According to IEC and Analysis with Matlab**
A. Hassan (Flensburg University of Applied Sciences, Germany), T. Heesch, R. J. Brown (DNV GL, Germany) (EMOB20-33)

12:23– 12:35 Discussions

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SESSION 3: MODELLING ASPECTS

13:30 – 15:10 | 3 NOVEMBER 2020 | SESSION CHAIR: Peter-Philipp Schierhorn (Energynautics, Germany)

13:30 – 14:50 Presentations (20 min. each)

- **Battery Energy Storage System Optimal Sizing in a Battery Electric Vehicle Fast Charging Infrastructure**
P. Félix, L. A. C. Roque (Polytechnic of Porto, Portugal), I. Miranda (Efacec, Portugal), A. Gomes (Polytechnic of Porto, Portugal) (EMOB20-49)
- **Hosting Capacity Assessment of Electric Vehicles, Heat Pumps and Rooftop PV for the City of Worms, Germany**
L. Hülsmann, S. Hempel, E. Tröster (Energynautics, Germany), M. Koch, U. Ohi (EWR Netz GmbH, Germany) (EMOB20-7)
- **Charging Solution Assets Operational Performance Modelling - a Bayesian Approach**
T. J. T. van der Wardt, L. A. Hurtado (Allego, Netherlands) (Emob-149)
- **Substation Spacing Considerations for DC Overhead Line Truck Systems**
M. Hof (Fraunhofer IEE, Germany) (EMOB20-9)

14:50 – 15:10 Discussions

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SESSION 4: CHARGING INFRASTRUCTURE PLANNING

15:30 – 17:10 | 3 NOVEMBER 2020 | SESSION CHAIR: Thorsten Schlößler (Energynautics, Germany)

15:30 – 16:50 Presentations (20 min. each)

- **Promising Practices for Integrating Electric Vehicles into the Grid**
J. Hildermeier, C. Kolokathis, J. Rosenow, M. Hogan, C. Wiese, A. Jahn (The Regulatory Assistance Project, Germany) (EMOB20-150)
- **Car Usage in the Fleet of a Regional Council and Need for Intelligent Charging Infrastructure**
T. Schneider, S. Sigle (German Aerospace Center – DLR, Germany), D. Huschenhöfer (Center for Solar Energy and Hydrogen Research Baden-Württemberg – ZSW, Germany) (EMOB20-121)
- **Grid integration: Public Transport Electrification vs. Private Electric Vehicle Charging**
T. Röpcke, N. Pieniak, J. Brendel (Reiner Lemoine Institut, Germany) (EMOB20-55)
- **A Smart Charging Management Interface for Electric Vehicles Based on the Communication Links through the Electrical Grid**
S. Darvish, L. Baum, F. Grumm, D. Schulz (Helmut Schmidt University, Germany) (Emob-148)

16:50 – 17:10 Discussions

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SESSION 5 – PODIUM DISCUSSION / CLOSING SESSION

17:15– 18:00 | 3 NOVEMBER 2020 | SESSION CHAIR: Karsten Burges (RE-xpertise Berlin, Germany)

How to Adequately Deal with the Many Uncertainties while Effectively Stimulating (Market) Uptake of E-Mobility?

Panelists:

- Matteo Muratori (NREL, USA)
- Claudia Rathfux (Stromnetz Berlin, Germany)
- Andreas Jahn (The Regulatory Assistance Project, Germany)
- Frank Müller (BEM – German Federal Association for eMobility, Germany)
- Thorsten Schlößler (Energynautics, Germany)

17:55– 18:00 Closure