



PRELIMINARY PROGRAM AS OF 20 SEPTEMBER 2018

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TIMETABLE 2nd E-MOBILITY INTEGRATION SYMPOSIUM

MONDAY, 15 OCTOBER 2018			
E-Mobility Symposium			
08:00 – 09:00	FOYER M1 – M3		
	REGISTRATION		
09:00 – 09:10	ROOM M1		
	OPENING: WELCOME AND INTRODUCTION		
09:10 – 11:00	ROOM M1		
	SESSION 1: KEYNOTE SESSION		
COFFEE BREAK (20 MIN)			
11:20 – 13:00	ROOM M1	ROOM M2	ROOM M3
	SESSION 2A: PROJECT EXPERIENCE	SESSION 2B: CHARGING INFRASTRUCTURE	SESSION 2C: MARKET ISSUES
13:00 – 13:15 GROUP PHOTO			
LUNCH 13:15 – 14:00 (45 MIN)			
14:00 – 15:40	ROOM M1	ROOM M2	ROOM M3
	SESSION 3A: STORAGE ASPECTS	SESSION 3B: POWER SYSTEM ASPECTS	SESSION 3C: MODELLING ASPECTS
COFFEE BREAK (20 MIN)			
16:00 – 18:00	ROOM M1	ROOM M2	ROOM M3
	SESSION 4A: GRID INTEGRATION ASPECTS	SESSION 4B: DISTRIBUTION GRID ISSUES	SESSION 4C: OVERALL ENERGY SYSTEM AND BEHAVIORAL ASPECTS
18:05 – 18:45	ROOM M1		
	SESSION 5 – PODIUM DISCUSSION & CLOSURE		
19:00	POSTER RECEPTION & NETWORKING		

MONDAY, 15 OCTOBER 2018

08:00 – 09:00 Registration

09:00 – 09:10 Welcome

09:10 – 11:00 SESSION 1 – KEYNOTE SESSION

> Session Chair T. Ackermann (Energynautics, Germany)

09:10 – 10:30 Presentations (20 min each)

- **TBA**
Tomas Björnsson (Vattenfall, Sweden)
- **Solar Mobility – Choosing Solar for the Driver’s Seat**
Aurélie Beauvais (SolarPowerEurope, Belgium)
- **Batteries, a Game Changer in Transport, Power and Industry**
Bo Normark (InnoEnergy Scandinavia, Sweden)
- **Presentation 4 – TBA**

10:30 – 11:00 Discussions

11:00 – 11:20 COFFEE BREAK

11:20 – 13:00 SESSION 2A – PROJECT EXPERIENCE

> Session Chair J. Charles Smith (ESIG, USA)

11:20 – 12:40 Presentations (20 min. each)

- **CleanMobilEnergy- A Smart Energy Management System Integrating Renewable Energy and Electric Vehicles**
P. Swart (City of Arnhem, Netherlands) ([Submission-ID Emob-28](#))
- **Evaluation of Infrastructure Concepts for Urban Electric Bus Depots**
L. Haffner (Helmut Schmidt University, Germany), M. Dietmannsberger (Hamburger Hochbahn AG, Germany), D. Schulz, M. Schumann (Helmut Schmidt University, Germany) ([Submission-ID Emob-174](#))
- **Optimal E-Mobility Integration in Hotels**
J. von Appen, J. Ringelstein, C. Nölle (Fraunhofer IEE, Germany), S. Misara (Betterspace, Germany) ([Submission-ID Emob-289](#))
- **Research Campus Mobility2Grid: From Lab to Reality**
D. Göhlich, K. Karohs (Technische Universität Berlin, Germany | Forschungscampus Mobility2Grid, Germany) ([Submission-ID Emob-51](#))

12:40– 13:00 Discussions

11:20 – 13:00	SESSION 2B – CHARGING INFRASTRUCTURE
> Session Chair	TBA
11:20 – 12:40	Presentations (20 min. each)
	<ul style="list-style-type: none"> • Required Technologies for Grid Integration of Charging Infrastructure J. Selle (ENERCON, Germany), J. Brombach (Innovation for ENERCON, Germany) (Submission-ID Emob-30) • Optimized Charging Infrastructure and Power System Operation & Planning B. Ernst (Fraunhofer IEE, Germany) (Submission-ID Emob-243) • Methods for Efficient Charging Infrastructure Placement K. Goldammer, O. Arnhold, N. Pieniak, K. Hübner, J. Hartmann (Reiner Lemoine Institut, Germany) (Submission-ID Emob-161) • Distributed Collaborative Algorithm for Energy and Load Management in Buildings H. Suonsivu, S. Kellomäki, J. Helander (Parking Energy, Finland) (Submission-ID Emob-303)
12:40 – 13:00	Discussions

11:20 – 13:15	SESSION 2C – MARKET ISSUES
> Session Chair	TBA
11:20 – 12:45	Presentations (17 min. each)
	<ul style="list-style-type: none"> • E-MMM A Market Maturity Model for Electric Mobility Grid Integration S. Klingert (University of Mannheim, Germany), M. Perez-Ortega, Maria (GFI, Belgium) (Submission-ID Emob-208) • Assessment of New Flexibility Instruments for Electric Vehicles to Increase Network Utilisation M. Doering, C. Nabe, (Ecofys, Germany), M. Herrmann, A. Kießling, K.-H. Schmid (E.ON Essen and Regensburg, Germany) (Submission-ID Emob-235) • Optimized Charging of Electrical Vehicles Based on the Day-Ahead Auction and Continuous Intraday Market J. Meese, E. Schnittmann, R. Schmidt, M. Zdrallek (University of Wuppertal, Germany), T. Arnoneit (Stadtwerke Iserlohn GmbH, Germany) (Submission-ID Emob-47) • Future System Services Provided from Electric Vehicles P. Herbert (Vattenfall R&D, Sweden) (Submission-ID Emob-100) • Optimal Self-Scheduling of Electric Vehicle Aggregation in Energy and Primary Reserve Markets in the Nordics L. Herre, J. Dalton, L. Söder (KTH Royal Institute of Technology, Sweden) (Submission-ID Emob-158)
12:45 – 13:15	Discussions

13:00 – 13:15 GROUP PHOTO

13:15 – 14:00 LUNCH BREAK

14:00 – 15:40	SESSION 3A – STORAGE ASPECTS
> Session Chair	TBA
14:00 – 15:20	Presentations (20 min. each)
•	Solar Powered EV Smart Charging Station with Tesla Powerwall N. Francis (DNV GL, Netherlands) (Submission-ID Emob-3)
•	Hot-spot Scenarios of Electrical-Vehicles on the Low Voltage Grid Including Statistics and Effect of Decentralized Battery Storage J. Wenske, B. Matthiss, J. Binder (Center for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW), Germany), T. Speidel (ads-tec GmbH, Germany), V. Klausser, M. Klesse (Stadtwerke Nürtingen, Germany) (Submission-ID Emob-182)
•	Increased Utilization of Residential PV-Storage Systems through Locally Charged Battery Electric Vehicles D. Huschenhoefer, J. Mieser, J. Binder (Center for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW), Germany), T. Speidel (ads-tec GmbH, Germany) (Submission-ID Emob-222)
•	Smart Integration of Vehicle Charging, Photovoltaics, and Battery Storage System in a Household C. Sundström, M. Kronawitter (Vehicular systems, Linköping University, Sweden) (Submission-ID Emob-205)
15:20 – 15:40	Discussions

14:00 – 15:40	SESSION 3B – POWER SYSTEM ASPECTS
> Session Chair	TBA
14:00 – 15:20	Presentations (20 min. each)
•	The Power Grid is the Backbone for E-Mobility S. Gonzalez Vazquez, F. Regnery (Network Technology/Network Operation Forum at VDE (FNN), Germany) (Submission-ID Emob-314)
•	Charging of Electric Vehicles and its Influence on the Local Voltage J. Wetterström (Vattenfall AB, Sweden) (Submission-ID Emob-79)
•	Impact of Increasing E-Mobility on a Distribution Grid at the Medium Voltage Level J. Vopava, T. Kienberger (Montanuniversität Leoben, Austria) (Submission-ID Emob-23)
•	Scenario-driven Analysis of Intelligent Charging Strategies Caused by the Market Ramp-up of Electric Vehicles D. Bracht, T. Montag (P3 group, Germany), M. Kurth (RWTH Aachen, Germany) (Submission-ID Emob-267)
15:20 – 15:40	Discussions

14:00 – 15:40	SESSION 3C – MODELLING ASPECTS
> Session Chair	TBA
14:00 – 15:20	Presentations (20 min. each)
•	Probabilistic Modelling of Charging Profiles in Low Voltage Networks T. Schlösser, E. Tröster (Energynautics, Germany) T. Kurpat (RWTH Aachen, Germany) (Submission-ID Emob-324)
•	Grid Integration Studies for eMobility Scenarios with Comparison of Probabilistic Charging Models to Simultaneity Factors K. Ulfers, A. Scheidler, C. Töbermann (Fraunhofer IEE, Germany), M. Braun (Fraunhofer IEE, Germany University of Kassel, Germany) (Submission-ID Emob-293)
•	Electric Vehicle Destination Charging Demand Characterizations at Popular Amenities using Monte Carlo Simulations based on Smartphone Locational Data J. Dixon, I. Elders, K. Bell (University of Strathclyde, United Kingdom) (Submission-ID Emob-25)
•	Design of Electric Vehicle Smart Charging Models for the Residential Sector: Potential Study M. Shepero, R. Fachrizal, J. Munkhammar, J. Widén (Uppsala University, Sweden) (Submission-ID Emob-113)
15:20 – 15:40	Discussions

15:40 – 16:00 COFFEE BREAK

16:00– 18:00	SESSION 4A – GRID INTEGRATION ASPECTS
> Session Chair	TBA
16:00 – 17:40	Presentations (20 min. each)
•	Analysis and Evaluation of Power Quality Aspects in a Low-Voltage Grid with a High Quantity of Charging Stations J. Zumpe, J. Eppler (Fichtner, Germany) (Submission-ID Emob-147)
•	Impact of Implementation of Electric Road Systems on the German and Swedish Electricity System M. von Bonin, B. Ernst, N. Gerhard (Fraunhofer IEE, Germany), M. Taljegard, F. Johnsson (Chalmers University of Technology, Sweden) (Submission-ID Emob-242)
•	Electric Vehicle CPMS and Secondary Substation Management J. Marques, K. Kotsalos (Efacec, Portugal) (Submission-ID Emob-24)
•	Impact Assessment of Integrating Novel Battery-Trolleybuses, PV Units and EV Charging Stations in a DC Trolleybus Network M. Salih, M. Wazifehdust, D. Baumeister, P. Steinbusch, M. Zdrallek (University of Wuppertal, Germany), S. Mour, H. Ben Zid (Stadtwerke Solingen GmbH, Germany) (Submission-ID Emob-95)
•	Electric Vehicle User Behavior and Demand Response - A Strive for Energy Autonomy E. N. Isaac (Nithin Isaac, South Africa) (Submission-ID Emob-167)
17:40 – 18:00	Discussions

16:00– 18:00	SESSION 4B – DISTRIBUTION GRID ISSUES
> Session Chair	TBA
16:00 – 17:40	Presentations (20 min. each)
•	<p>Optimal Control in a Smart Grid Aggregator: Connecting PV, EV, Energy Storage, and Heating Systems to Solve the Power Problem. J. Ridenour (Ngenic AB, Sweden), J. Lindborg (Sustainable Innovation, Sweden) (Submission-ID Emob-305)</p>
•	<p>Evaluation of Grid Relieving Measures for Integrating Electric Vehicles in Rural Low-Voltage Grids B. Thormann, T. Kienberger (University of Leoben, Austria) (Submission-ID Emob-84)</p>
•	<p>Grid Load Relief by Smart Charging of Electric Vehicles T. Schlösser, E. Tröster (Energynautics, Germany) T. Kurpat (RWTH Aachen, Germany) (Submission-ID Emob323)</p>
•	<p>Real-Time Coordinated Charging for Plug-in Electric Vehicles to Mitigate Asset Overloading in Radial Distribution Networks: A Comparison of Implementations C. García Veloso (KTH Royal Institute of Technology, Sweden UPC Polytechnic University of Catalonia, Spain), K. Rauma (TU Dortmund University, Germany), J. Fernández (University of Victoria, Canada), C. Rehtanz (TU Dortmund University, Germany) (Submission-ID Emob-296)</p>
•	<p>EV Charging in Workplace Parking, Observations and Energy Management M. Peräniitty, J. Räsänen (Parking Energy Ltd, Finland) (Submission-ID Emob-291)</p>
•	<p>Opportunities of the New Energy Vehicles Fueling Station (NEFUSTA) Project F. Verhaak, N. Francis (DNV GL, Netherlands) (Submission-ID Emob-337)</p>
17:40 – 18:00	Discussions

16:00 – 18:00	SESSION 4C – OVERALL ENERGY SYSTEM AND BEHAVIORAL ASPECTS
> Session Chair	TBA
16:00 – 17:40	Presentations (20 min. each)
•	<p>The Mobile Transition – it is More than eMobility D. Lautensack (ABB Automation Products GmbH, Germany) (Submission-ID Emob-14)</p>
•	<p>Automatic Chargeable Vehicles in the Prosumer’s Ecosystem R. Eriksson (Volvo Cars, Sweden), S. Pettersson, U. Kristiansson, J. Wedlin (RISE Viktoria, Sweden) (Submission-ID Emob-200)</p>
•	<p>Smart Charging – A Strategy for Charging EVs in Big Cities with Load Shifting and Control J. Persson, J. Tollin, C. Gruffman, Y. He (Vattenfall R&D, Sweden) (Submission-ID Emob- 49)</p>
•	<p>ELECTRIFIC ADAS – a Behavioral Perspective on Grid Stability and Greener EV Use C. Kacperski, F. Kutzner (University of Mannheim, Germany), J. Wautelet (GFI, Belgium) (Submission-ID Emob-224)</p>
•	<p>Analysis of Different Sector Coupling Paths for CO2 Mitigation in the German Energy System under Consideration of Energy Supply Infrastructures E. Kattelmann, M. Blesl (University of Stuttgart, Germany) (Submission-ID Emob-66)</p>
17:50 – 18:00	Discussions

Title

Panelists:

- TBA

19:00 – 20:30 Poster Reception & Networking

POSTER PRESENTATIONS

- Regulatory Solution to Uncoordinated EV Charging Effects through Demand Response Aggregators**
 D. Toquica (Student University of Los Andes, Colombia) ([Submission-ID Emob-7](#))
- Aggregated Approach to Use the Flexibility of PEVs for Grid Support in local Energy Communities**
 E. Schnitmann, R. Schmidt, J. Meese, M. Zdrallek (University of Wuppertal, Germany), T. Arnoneit (Stadtwerke Iserlohn, Germany) ([Submission-ID Emob-33](#))
- Urban Network Infrastructure: Sharing of Charging Current and Utilization Potential**
 K. Rambow-Hoeschele (Robert Bosch GmbH | Aalen University, Germany | Glasgow Caledonian University, United Kingdom), A. Nagl (Aalen University, Germany), D. K. Harrison, B. M. Wood (Glasgow Caledonian University, United Kingdom), K. Bozem (bozem | consulting associates, Germany), K. Braun, P. Hoch (Aalen University, Germany) ([Submission-ID Emob-127](#))
- Pathways to Electromobility: Upgraded Charging Infrastructure Through Renewable Energies**
 K. Rambow-Hoeschele (Robert Bosch GmbH | Aalen University, Germany | Glasgow Caledonian University, United Kingdom), A. Nagl (Aalen University, Germany), D. K. Harrison, B. M. Wood (Glasgow Caledonian University, United Kingdom), K. Bozem (bozem | consulting associates, Germany), K. Braun, P. Hoch (Aalen University, Germany) ([Submission-ID Emob-131](#))
- Charging Profile „HomeZone“: Customer Retention Measures and Charging Infrastructure Optimization**
 K. Rambow-Hoeschele (Robert Bosch GmbH | Aalen University, Germany | Glasgow Caledonian University, United Kingdom), A. Nagl (Aalen University, Germany), D. K. Harrison, B. M. Wood (Glasgow Caledonian University, United Kingdom), K. Bozem (bozem | consulting associates, Germany), K. Braun, P. Hoch (Aalen University, Germany) ([Submission-ID Emob-132](#))
- Technical and Economic Aspects of Autonomous, Connected, Electric and Shared Vehicles and Implications for Power System Infrastructure**
 N. G. Rambow (Robert Bosch GmbH, Germany | Reutlingen University, Germany), K. Rambow-Hoeschele (Robert Bosch GmbH, Germany | Glasgow Caledonian University, United Kingdom), M. M. Hampel (Robert Bosch GmbH, Germany | Glasgow Caledonian University, United Kingdom) ([Submission-ID Emob-152](#))

- **The Connected Vehicle and Its Conversion to Electromobility: Concepts and Strategies on Grid Integration**
N. G. Rambow (Robert Bosch GmbH, Germany | Reutlingen University, Germany), K. Rambow-Hoeschele (Glasgow Caledonian University, United Kingdom | Robert Bosch GmbH, Germany), M. M. Hampel (Robert Bosch GmbH, Germany | Glasgow Caledonian University, United Kingdom) ([Submission-ID Emob-154](#))
- **Future Vehicle Design with Ethical Criteria and Its Impact on Power System Operation**
N. G. Rambow (Robert Bosch GmbH, Germany | Reutlingen University, Germany), M. M. Hampel (Robert Bosch GmbH, Germany | Glasgow Caledonian University, United Kingdom), K. Rambow-Hoeschele (Glasgow Caledonian University, United Kingdom | Robert Bosch GmbH, Germany) ([Submission-ID Emob-157](#))
- **Autonomous Voltage and Frequency Control by Smart Inverters of Photovoltaic Generation and Electric Vehicle**
S. Kamo, H. Toda, Y. Ota, T. Nakajima (Tokyo City University, Japan) ([Submission-ID Emob-236](#))
- **Implementation and Verification of V2G Control Schemes on Multiple Electric Vehicles**
H. Toda, Y. Ota, T. Nakajima (Tokyo City University, Japan), K.-i. Kawabe (Tokyo Institute of Technology, Japan), A. Yokoyama (The University of Tokyo, Japan) ([Submission-ID Emob-288](#))