



EVS 31
& EVTeC 2018

KOBE *Convention Center, JAPAN*

Sept.30-Oct.3,2018

**Leading a Smart Society
with New Mobility**

Technical Session - Preliminary Program

As of June 20, 2018

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Timetable

Day 1 >>> Monday, Oct.1

Monday, Oct. 1 10:30-12:30						
A1(Special Session) Vehicle Motion Control & Dynamic Charging	A2(Special Session) Power Electronic Components & System Technologies	A3 Batteries 1	A4 Heavy-duty Vehicles 1	A5 Batteries 2	A6 V2X (V2G & V2H) 1	A7 Impact of EV Economy
Monday, Oct. 1 13:20-15:20						
B1(Special Session) In-Wheel/Integrated Motor Technologies	B2(Special Session) Power Electronic Packages & Modules	B3 Electric Powertrain	B4 Heavy-duty Vehicles 2	B5 Batteries 3	B6 V2X (V2G & V2H) 2	B7 EV Market Development around the Globe

Day 2 >>> Tuesday, Oct.2

Tuesday, Oct. 2 10:30-12:30						
C1 Wireless Power Transfer 1	C2(Special Session) Advanced Components for Electric Machines	C3 Energy Storage Systems 1	C4 Marketing & Car Sharing 1	C5(Special Session) Wide Band Gap Devices & Related Issues	C6 EV Charging Infrastructure 1	C7(Special Session) Fuel Cell Systems
Tuesday, Oct. 2 14:20-16:20						
D1(Special Session) Wireless Power Transfer 2	D2(Special Session) New Motor Technologies for Electric Vehicles	D3 Energy Storage Systems 2	D4 Marketing & Car Sharing 2	D5 Power Electronic Components	D6 EV Charging Infrastructure 2	D7 Environmental Impact

Day 3 >>> Wednesday, Oct.3

Wednesday, Oct. 3 10:30-12:30						
E1(Special Session) Wireless Power Transfer 3	E2(Special Session) Energy Storage Devices 1	E3 Electric Vechicles	E4 Marketing & Car Sharing 3	E5 Electric Machines & Advanced Components for Transportation Systems	E6 EV Charging Infrastructure 3	E7 Fuel Cell and Battery Systems
Wednesday, Oct. 3 PM 13:20-15:20						
F1(Special Session) Wireless Power Transfer 4	F2(Special Session) Energy Storage Devices 2	F3 Simulation & Analysis	F4 Life Cycle Analysis	F5 Propulsion Systems & Motion Control Technologies	F6 AC & DC Charging System	F7 Fuel Cell Vehicles

Program

Special Session & Regular Session

Day 1 Monday, Oct 1 10:30-12:30

A1(Special Session) Vehicle Motion Control & Dynamic Charging

Design of a Multiple Adaptive Sliding Mode Controller for Improving Handling Performance of Electric Vehicles

Kanghyun Nam Yeungnam University, Korea

Ride Blending Control for Electric Vehicle

Valentin Ivanov Technische Universitt Ilmenau, Germany

Lateral Motion Estimation of Preceding Target Vehicles for Overtaking Decision and Control

Yafei Wang Shanghai Jiao Tong University, China

Modelling techniques for designing high-performance on-road dynamic charging systems for electric vehicles

Jon Are Suul SINTEF Energy Research, Norway

Study of 450-kW Conductive Dynamic Charging System

Takamitsu Tajima Honda R&D Co., Ltd., Japan

EV system development for large vehicles to achieve early EV promotion in the bus / truck category

Atsushi Mizukoshi PUES Corporation, Japan

A2(Special Session) Power Electronic Components & System Technologies

A Current Detection Method for Avoiding Switching Noise of Inverter.

Takeshi Kuroda Fuji Electric Co., Ltd., Japan

A Method to Design the DC Link Voltage Controller for Minimum DC Link Voltage Driving Method of Hybrid Electric Vehicles

Jongwon Heo Chiba University, Japan

High efficiency chopper based EV Range extender

Ayatara Tamura Yokohama National University, Japan

Experimental Verification of an Energy Management Method for Fuel Cell Hybrid Electric Vehicles with EDLC

Toshinori Kitamura Tokyo University of Science, Japan

Development of a Transmission-Mounted Power Control Unit including 12-volt DC-DC Converter for 3rd generation Two-Motor

Toshimitsu Kobori Honda R&D Co., Ltd. Automobile R&D Center, Japan

Development of On-Board Battery Charger for the new Prius PHV

Koji Taki TOYOTA INDUSTRIES CORPORATION, Japan

A3 Batteries 1

Analysis and Design of a High Power Module for 48 V Applications

Michael Bassett MAHLE Powertrain Limited, UK

Evolution of U.S. Department of Energy Battery Performance Targets For Electrified Vehicles

Ehsan Sabri Islam Argonne National Laboratory, USA

Field results from of LTO battery packs application for ultrafast charging e-buses and trolleybuses

Bartek Kras Impact Clean Power Technology S.A., Poland

Battery Sizing for Electric Vehicles based on Real Driving Pattern in Thailand

Bongkotchaporn Duangsrikaew King Mongkut's Institute of Technology Ladkrabang, Thailand

Genetic algorithm used for battery pack optimization considering mass, volume and cost

Lysander De Sutter Vrije Universiteit Brussel, Belgium

Characterization and Concept Validation of Lithium-Ion Batteries in Automotive Applications by Load Spectrum Analysis

Tanja Gewalt Technical University of Munich, Germany

A4 Heavy-duty Vehicles 1

Electrified Powertrains for Trucks and Buses

Ram Vijayagopal Argonne National Laboratory, USA

How to Build a Bus Battery Case

Peter Geuting Daimler AG, Germany

Jaworzno: achieving first 250 000 km in regular e-bus operation - challenges and the future

Adam Piotrowski Solaris Bus & Coach S.A., Poland

Integrated TCO Assessment of Bus Network Electrification Considering Rescheduling and Delays

Dominic Jefferies Technical University Berlin, Germany

From a vision to the series production. Solaris experience in e-mobility.

Michal Pikula Solaris Bus & Coach S.A., Poland

On specific energy consumption of conventional, series hybrid and fully electric buses.

Carlo Villante University of L'Aquila, Italy

A5 Batteries 2

Thermal Modelling Of Lithium Ion Batteries For Temperature Rise Predictions In Hybrid Vehicle Application

Balaji RV University of Warwick, UK

Lithium-Lithium BIND Battery: Innovative Hybrid Lithium-Ion Battery With High Energy Density and High Rate Capability

Tomohiko Matoba CONNEXX SYSTEMS Corporation, Japan

Experimental investigation of reaction rates during electrodeposition in Li-Sulfur battery

Shovon Goutam Vrije Universiteit Brussel, Belgium

12V BIND Battery: Simple and Effective Hybrid Battery Technology for Advanced Idling Reduction System

Naoyoshi Kachi CONNEXX SYSTEMS Corporation, Japan

Simulation and measurement of lithium plating due to spatial inhomogeneous separator strain in lithium-ion-cells

Fabian Ebert Fraunhofer Institute for Silicate Research ISC, Germany

Research on natural frequency of pouch cells under different SOC

Zhichao Hou Tsinghua University, China

A6 V2X (V2G & V2H) 1

Initial findings on the first large scale vehicle-to-grid (V2G) demonstrator in the world

Myriam Neaimeh Newcastle University, UK

Characterization and Dynamic Modelling of Commercial V2G CHAdeMO Chargers with Reactive Power Capability

Antonio Zecchino Technical University of Denmark (DTU), Denmark

Influence of V2G Frequency Services and Driving on Electric Vehicles Battery Degradation in the Danish Island Bornholm

Andreas Thingvad DTU - Technical University of Denmark, Denmark

Cross-brand validation of grid services using V2G-enabled vehicles in the Parker project

Peter Bach Andersen Technical University Of Denmark, Denmark

The Business Case of Vehicle-to-Grid (V2G) Charging within the Dutch Frequency Containment Reserve Market

Sjoerd Moorman EVConsult, Netherlands

Increasing the self-sufficiency of a Belgian city depot by smart charging/V2G and a relighting project

Bram Rotthier KU Leuven, Belgium

A7 *Impact of EV Economy*

Gas or Electricity: How electricity competes in an era of cheap gasoline

Michael Nicholas The International Council on Clean Transportation, USA

How might the German distribution grid cope with 100% market share of BEV?

Patrick JOCHEM Karlsruhe Institute of Technology (KIT), Germany

Driving EV Adoption at the Workplace

Zach Henkin Forth, USA

Common Information Models for standardised distributed interoperable EV services

Christina Anagnostopoulou Institute of Communication and Computer Systems, Greece

Scaling and industrialization of an all-electric taxi fleet

Pascal Blouin Innovative Vehicle Institute, Canada

Uncertainty Mitigation for Robust Scheduling of Electric Vehicles in Distribution Networks

Fabian Neumann Fraunhofer Institute for Systems and Innovation Research (ISI), Germany

Day 1 Monday, Oct 1 13:20-15:20

B1(Special Session) In-Wheel/Integrated Motor Technologies

Experimental Verification of Second Generation Wireless In-Wheel Motor with Dynamic Wireless Power Transfer

Hiroshi Fujimoto The University of Tokyo, Japan

In-wheel powertrain functions for the autonomous and connected future

Gorazd Gotovac Elaphe Propulsion Technologies Ltd, Slovenia

Shock-less Shift Control Method of Wheel Hub Motor with two-speed transmission

Ryuhō Morita NSK Ltd., Japan

Development of High Performance & High-Power Density Inverter Integrated Motor Unit.

Hiroaki Kakei MEIDENSHA CORPORATION, Japan

Integrated driveline electrification with and without transmissions

Rafel Pascual de la Cruz ZF Japan Co., Ltd., Japan

Newly Developed Motor Cooling Method using Refrigerant

Hidemasa Fujita Mitsubishi Motors Corporation, Japan

B2(Special Session) Power Electronic Packages & Modules

High temperature operation of semi-conductor die attach by sintering of Ag3Sn material

Jean-Michel Morelle Valeo, France

Nickel-Tin Transient Liquid Phase Bonding using Al interlayer (TLP-Ai) to reduce thermal resistance and stress

Rintaro Asai Toyota Motor Corporation, Japan

High-power-density DC/DC Converter using a Novel Coupled Inductor to Reduce the Leakage Flux for Clarity Plug-in Hybrid

Akitomo Komatsuzaki Honda R&D Co., Ltd., Japan

The high capacity power module with optimal package technology

Shoji Saito Mitsubishi Electric Corporation, Japan

Scalable Si IGBT power module solution for growing xEV market

Kenji Kawada Infineon Technologies Japan KK, Japan

Automotive Qualification Routines for Power Electronics Modules in Electrified Powertrains

Martin Rittner Robert Bosch GmbH, Germany

B3 Electric Powertrain

Analysis of design-relevant parameters of shiftable gearboxes in electric drive systems

Katharina Bause Karlsruhe Institute of Technology (KIT), Germany

A Low Cost Hardware-in-the-Loop Simulation Platform for Powertrain of Extended-Range Electric Vehicle

Guangqian Du Tsinghua University, China

Experimental Verification of Man-Machine Interface Based on Electric Power Steering Control for ADAS

Ryo Minaki ADTech Corporation, Japan

Definition of Requirements for a New Vehicle Concept for Sub-Saharan Africa “ Load Collectives for Battery and Motor

Sascha Koberstaedt Technical University of Munich (TUM), Germany

Power sharing and shifting stability control for a dual input electric vehicle transmission system

Jiejunyi Liang University of Technology Sydney, Australia

Novel Approach to obtain Thermal Inverter Model for xEV Vehicles

Lakshmi Navya Sunkara Daimler AG, R&D India, India

B4 Heavy-duty Vehicles 2

Sub-Optimal Non-Linear Optimization of Trajectory Planning for the Next Generation Train (NGT)

Athanasios Iraklis German Aerospace Center (DLR), Germany

Virtualizing Software Validation in Electrified Powertrain Generations

Nadim Dudin IPEK - Institut for Product Engineering at Karlsruhe Institute of Technology (KIT), Germany

Modeling and Co-design Optimization for Heavy Duty Trucks

Duong Tran Vrije Universiteit Brussel, Belgium

Economics of electric vehicles for city logistics

Tariq Van Rooijen TNO, Netherlands

Evaluation of the state-of-the-art of full electric medium and heavy-duty trucks

Franciscus J.R. Verbruggen Eindhoven University of Technology, Netherlands

Co-design Optimization Framework for Electrified Buses in Cities: Brussels Case Study

Omar Hegazy Vrije Universiteit Brussels (VUB), Belgium

B5 Batteries 3

Separator strain inhomogeneities in lithium-ion-cells

Fabian Ebert Fraunhofer Institute for Silicate Research ISC, Germany

Automated evaluation of battery materials for more efficient and effective battery development

Kai Bockwinkel Technische Universitt Braunschweig, Germany

Phase Transition Analysis of LiFePO₄ by Using Time-Resolved X-ray Diffraction and Improvement of Rate Capability

Yoshiharu Uchimoto Kyoto University, Japan

Charge Compensation Mechanism of Anion Redox for Lithium-Excess Cathode materials

Yoshiharu Uchimoto Kyoto University, Japan

Assessment of battery cell assembly through non-invasive cell characterization using X-ray computer tomography

Ruben Leithoff Technische Universitt Braunschweig, Germany

B6 V2X (V2G & V2H) 2

Providing V2X services using ISO 15118

Thomas Dreumont Groupe Renault, France

Vehicle to home and power to heat “ a competition for stationary battery systems in residential quarters in Germany

Fritz Braeuer Karlsruhe Institute of Technology, Germany

A Study on Suppression Method of System Oscillation by Output Variation of Solar Power Generation at V2H

Masayoshi Hamanaka Aichi Institute of Technology, Japan

Aggregated Individual Electric Vehicles as Demand Response Resource

Andrew Thompson VEDECOM / Universite Paris SUD 11, USA

Smart Grid Integration of Electric Buses

Enrico Lauth Technical University Berlin, Germany

B2B EV smart charging: Results of a three-years experience to optimize EV charging on company sites

Laurent De Vroey ENGIE, Belgium

B7 EV Market Development around the Globe

Mapping the road to 2035

Jon Beasley Advanced Propulsion Centre UK, UK

A New Distributed Control of EVs For Load Frequency Control Retaining EV users Convenience

Nozomu Magome Meiji University, Japan

On the possibility of battery life-time extension through vehicles-to-grid in an aggregator connected to smart grid

Omid Rahbari Vrije Universiteit Brussel (VUB), MOBI Research Group and ETEC Dept., Belgium

Novel Approach for Determining a Sufficient Hydrogen Refueling Station Network

Jörn Hartmann Reiner Lemoine Institut gGmbH, Germany

Global EV Outlook 2018

Renske Schuitmaker International Energy Agency, France

Impacts of Mileage Accumulation and Fast Charging on EV Range and Energy Usage

Aaron Loiselle-Lapointe Environment and Climate Change Canada, Canada

Tuesday, Oct 2 10:30-12:30

C1 Wireless Power Transfer 1

Analysis of Circuit for Dynamic Wireless Power Transfer by Stepping Stone System

Hiroshi Uno Saitama University, Japan

Dynamic Contactless Power Transfer System using PS Topology Considering Mutual Coupling of Transmitter Coils

Jun Yamada Saitama University, Japan

Weight reduction and efficiency enhancement in wireless power transmission coils using magnetocoated aluminum plates

Shun Endo Shinshu University, Japan

Efficiency improvement for multi-position of receiving side in wireless power transfer coupling system at 13.56 MHz

TRI CUONG NGUYEN Shibaura Institute of Technology, Japan

Snubber-less Zero Voltage Soft-Switching Resonant Converter for Inductive Power Transfer featuring GaN-HFET

Tomokazu Mishima Kobe University, Japan

Electric safety challenges with a conductive Electric Road System

Francisco J. Márquez-Fernández Lund University, Sweden

C2(Special Session) Advanced Components for Electric Machines

Development of High Voltage Insulation of the Motor for EV and HV and PHV

Shingo Nagai TOYOTA MOTOR CORPORATION, Japan

Electrical steels and their evaluation for automobile motors

Kunihiro Senda JFE Steel Corporation, Japan

Study of High-speed SRM with Amorphous steel sheet for EV

Takeo Tomioka Shibaura Institute of Technology, Japan

Research of the Motor with Nanocrystalline Soft Magnetic Alloy Stator Cores

Tuyoshi Nonaka YASKAWAELECTRIC CORPORATION, Japan

Motor Control Technologies for Improving the Driving Performance of Electric Vehicles

Jun Motosugi Nissan Motor Co., Ltd., Japan

Position Sensorless Control for Wound-Field Synchronous Motor with Double Three-phase Wound Stator Using New EEMF Model

Koji Imai Nagoya University, Japan

C3 Energy Storage Systems 1

The impact of the vehicle-to-grid strategy on lithium-ion battery ageing process

Yi Li Vrije Universiteit Brussel, Belgium

Basic Research about Cooling Technology for Sealed-Type Battery Pack

Yoshimitsu Inoue Denso Corporation, Japan

Optimal Cooling Solution for High-Power Automotive Battery Module

Ziyi Wu FH Aachen, University of Applied Sciences Aachen, Germany

Evaluation of a validation process for a battery cooling system

Martin Eisele Karlsruhe Institute of Technology - KIT, Germany

Requirements for Actively Controlled Impedance Measurements on Battery Management Systems

Florian Ringbeck RWTH Aachen University, Germany, Germany

State of Health battery diagnosis estimator

Maitane Berecibar Vrije Universiteit Brussel, Belgium

C4 Marketing & Car Sharing 1

Keys to Electric Vehicle Market Growth in the U.S.

Nicholas Lutsey International Council on Clean Transportation, USA

Company Cars as a Channel for Electrification of the Passenger Car Market

Mats Williander RISE Viktoria, Sweden

Flip the Fleet: a citizen science approach to promoting electric vehicle uptake in New Zealand

Henrik Moller University of Otago, New Zealand

Promoting Electric Vehicles To New Zealanders - A Success Story

Shawn C. Moodie ChargeNet NZ, New Zealand

Method for prediction of Utilization Rate of Electric Vehicle Free-Floating Car Sharing Services using Data Mining

Cristofer Englund RISE Viktoria, Sweden

Consumer EV Education Lessons Learned

Zach Henkin Forth, USA, USA

C5(Special Session) Wide Band Gap Devices & Related Issues

Carrier lifetime measurements for wide gap semiconductors SiC and GaN

Masashi Kato Nagoya Institute of Technology, Japan

Utilization of Parasitic Luminescence from Power Semiconductor Devices for Current Sensing

Jonathan Winkler Robert Bosch GmbH, Germany

SiC for EV/HEV Application featuring Open-loop Drive Circuit Technology for Low SW Loss and Surge Voltage Reduction

Taku Shimomura Nissan Motor Co., Ltd, Japan

Analysis of the performance / reliability tradeoff of a SiC power module in electric drivetrain applications

Laurent Beurenaut Infineon Technologies, Germany

Power Module Concepts for Innovative Reliable Nitride based Power Devices and Applications

Martin Rittner Robert Bosch GmbH, Germany

SiC Power Components: Key Enabler for the Market Evolution of Greener Driving

Jochen Langheim STMicroelectronics S.A., France

C6 EV Charging Infrastructure 1

Future Critical Infrastructure and Security - Cyberattacks on Charging Stations

Manuel Allhoff P3 Group, Germany

Design Aspects and Control System of 11kW On-board Charger based on SiC Technology for Electric Vehicles

Omar Hegazy Vrije Universiteit Brussel(VUB), Belgium

EV Accelerator Cities Leading the Charge in the U.S.

Ben Prochazka Electrification Coalition, USA

Simulation of habits in electric vehicle charging behaviour - and how users without habits behave –

Rick Wolbertus Amsterdam University of Applied Sciences, Netherlands

The Successful Business Models of EV Charging

Charles Botsford AeroVironment, Inc., USA

Valuation of charging time for electric vehicles

Quentin De Clerck Vrije Universiteit Brussel - MOBI, Belgium

C7(Special Session) Fuel Cell Systems

Honda Fuel Cell Vehicle Development and Toward the Hydrogen Society

Takashi Moriya Honda R&D Co., Ltd., Japan

Effects of Environmental Conditions on Cathode Degradation of PEFC during Potential Cycle

Yoshiyuki Hashimasa Japan Automobile Research Institute, Japan

Development of 70MPa-capable Light-duty Truck Powered by Fuel Cell

Kazuya Maita Tokyo R&D Co., Ltd., Japan

The New Hybrid System Applied to CLARITY PLUG-IN HYBRID

Tomoya Yamagishi Honda R&D Co.,Ltd.Automobile R&D Center, Japan

Development of Technical Regulations for Fuel Cell Motorcycles in Japan

Eisuke Yamada Japan Automobile Research Institute, Japan

International Standardization Activities on EVs at JARI

Kenji Morita Japan Automobile Research Institute, Japan

Tuesday, Oct 2 14:20-16:20

D1(Special Session) Wireless Power Transfer 2

Magnetic Coupler Design of Wireless Power Transfer System for Rotating Equipment

Kai Song Harbin Institute of Technology, China

Energy Saving and Peak Power Cut Effect by High Power Wireless Transmission in Railway Vehicle Traction Application

Toranosuke Uehara Graduated School of Chiba University, Japan

A 1.14 kW Magnetic Energy Harvesting Near Power Line by Considering Saturation Effect

Bumjin Park KAIST, Korea

Analysis of the battery lifetime in Wireless Charger System for AGV by Model Based Development method

Hiroshi Yamamoto Panasonic Corporation, Japan

Theoretical Analysis Model for Future 6.78MHz and/or 13.56MHz WPT Systems Based on the Electromagnetic Theory

Atsuo Hatono University Kuala Lumpur, Malaysia

Comparative Verification of Radiation Noise Reduction Effect using Spread Spectrum for Inductive Power Transfer System

Jun-ichi Itoh Nagaoka University of Technology, Japan

D2(Special Session) New Motor Technologies for Electric Vehicles

Development of motor for New Electric Vehicle - Shared motor with Fuel Cell Vehicle –

Hirofumi Suzumori Honda R&D Co., Ltd. Automobile R&D Center, Japan

Variable Magnetic Flux PM-Motor with Automatically Flux Weakening Technique

Ryosuke Akaki SUZUKI Motor Corporation, Japan

Self-excited wound-field synchronous motors for xEV

Masahiro Seguchi DENSO corporation, Japan

Hybrid Excitation Flux Switching Motor with High Filling Factor Windings

Takashi Kosaka Nagoya Institute of Technology, Japan

Considering The Angle of Rotor Pole Arc for The Radial Force Distribution in Switched Reluctance Motor

Candra Adi Wiguna Tokyo Institute of Technology, Japan

5kW, 120krpm High Power Density Synchronous Machines for an ORC Waste Heat Recovery System

David Gerada The University of Nottingham, UK

D3 Energy Storage Systems 2

A Data-Driven Parameter and State of Charge Estimation Method for Lithium-ion Battery Considering Current Sensor Offset

Haifeng Dai Tongji University, China

Battery thermal management for fast charging electric two-wheelers

Bastian Mayer German Aerospace Center, Germany

The Wavelet-based Artificial Neural Network for State of Charge Estimation: its reliability and adaptability

Wassamon Phusakulkajorn National Science and Technology Development Agency (NSTDA), Thailand

Exploring the attributes of Particle Filter versus non-linear variant of Kalman Filter for battery state estimation

Kristian E Roaldsnes Norwegian University of Science and Technology, Norway

Disruptive new Technology in Effective Battery Control

Hans Harjung e-moove GmbH, Vienna / Austria, Austria

Development of high input energy storage devices for energy regeneration systems

Shuichi Ishimoto Nippon Chemi-Con Corporation, Japan

D4 Marketing & Car Sharing 2

Influences of Predictive Driving Algorithms on the Energy Demand of Modern Powertrains

Thorsten Plum Institute for Combustion Engines VKA, RWTH Aachen University, Germany

Investigating the use of electric vehicles in new mobility services

Alan Jenn University of California, Davis, USA

Evolving Estimates of Emerging Eminence of Electrified Vehicles

Danilo Santini Argonne National Laboratory, USA

The Transformation of the Cradle: Strategic Dialogue Automotive Industry Baden-Wrttemberg

Wolfgang Fischer e-mobil BW GmbH - State Agency for New Mobility Solutions and Automotive Baden-Wrttemberg, Germany

Gasoline Savings from Electric Vehicle Adoption

Rubal Dua KAPSARC, Saudi Arabia

A way of successful EV and HEV market in Asia

Shigeyuki Minami Osaka City University, Japan

D5 Power Electronic Components

NEW SOLUTIONS IN OVER-CURRENT PROTECTION OF HVDC CIRCUIT IN ELECTRIC VEHICLE

Mitja Koprivsek ETI Elektroelement, Slovenia

Impedance Modeling for Accurate Estimation of DC-Link Current and Voltage Ripple in Electric Vehicles

Andreas Henriksson Chalmers University of Technology, Sweden

Instability Phenomenon of Power Supply Systems Including Constant Power Loads and its stabilization

Yuki Kubo DENSO CORPORATION, Japan

Multi-Modular Isolated Three-Phase AC-DC Converter for Rapid Charging with Autonomous Distributed Control

Masakazu Adachi Nagaoka University of Technology, Japan

High-Power Soft-Switching Three-Level DC-DC Converter for Railway Applications

Yoshinobu Koji Kobe University, Japan

800V Charging Drives the Introduction of High Power DCDC Converters with Silicon Carbide in EVs - A Demo Car Implementat

Martin Bruell Continental, Germany

D6 *EV Charging Infrastructure 2*

Safety Model for the Combined Charging System

Dennis Haub German Commission for Electrical, Electronic & Information Technologies (DKE), Germany

Reliable charging bill

Dennis Haub German Commission for Electrical, Electronic & Information Technologies (DKE), Germany

Smart Charging of electric vehicles, Institutional bottlenecks and possible solutions

Baerte De Brey ElaadNL, Netherlands

CHARGE THE NORTH: CHARACTERIZING ELECTRIC VEHICLE CHARGING PROFILES & ENHANCING CHARGING INFRASTRUCTURE IN CANADA

Eric Mallia FleetCarma, Canada

Fast average battery capacity loss in the 30 kWh model of a popular electric vehicle in New Zealand

Daniel Myall New Zealand Brain Research Institute, New Zealand

Measuring the service quality of EV charging point operators

Lieselot Vanhaverbeke Vrije Universiteit Brussel, Belgium

D7 *Environmental Impact*

Electric vehicles as a flexibility management strategy in Europe

Maria Taljegard Chalmers University of Technology, Sweden

Real-world energy consumption and emissions of plug-in hybrid vehicles

Simone Ehrenberger German Aerospace Center, Germany

Environmental Advantages of Electric Vehicles in terms of Well to Wheel CO2 Emissions - A Japanese Case Study –

Yuki Kudoh National Institute of Advanced Industrial Science and Technology, Japan

Scaling Smart EV Utility-Driven Infrastructure

Ashley Horvat Greenlots, USA

Simulation of Future Electric Vehicle Charging behaviour - Effects of transition from PHEV to FEV –

Jurjen Helmus University of Applied Science Amsterdam, ,, Netherlands

Impact of Increased Vehicle Weight on Energy Consumption of Diverse Powertrain Options Under Real-World Driving in Bangkok

Angkee Sripakagorn Faculty of Engineering, Chulalongkorn University, Thailand

Wednesday, Oct 3 10:30-12:30

E1(Special Session) Wireless Power Transfer 3

Robustness analysis of wireless charging system for EV/PHEV

Kensuke Kamichi Toyota Motor Corporation, Japan

Development of a high efficiency wireless power transfer system for Electrified Vehicles

Daisuke Tsukiyama DAIHEN Corporation, Japan

Wireless Charging System for passenger EV/PHEV

Naoki Ohmura IHI Corporation, Japan

Bidirectional inductive charging systems economical in the electricity grid

Philipp Schumann Robert Bosch GmbH, Germany

Vehicle Integration of wireless power transfer systems

Steve Zimmer Daimler AG, Germany

85 kHz band 44 kW wireless rapid charging system for field test and public road operation of electric bus

Shuichi Obayashi Toshiba Corporation, Japan

E2(Special Session) Energy Storage Devices 1

Auxiliary power supply system for Electric Power Steering and high heat resistant Lithium-ion capacitor

Takumi Mio JTEKT Corporation, Japan

DC-Link Capacitor Life Prediction for 48 V Mild Hybrid Passenger Vehicles

Toshihiko Furukawa United Chemi-Con, Inc, USA

Mileage Improvement with Electrochemical Capacitors When Retrofitting Class 2 Vehicles for Hybrid Operation

Toshihiko Furukawa Nippon Chemi-Con Group / United Chemi-Con, USA

Development of the High-Voltage Battery Pack for the Hybrid Electric Vehicle

Yu Harada SUZUKI MOTOR CORPORATION, Japan

Development of the Li-ion Battery Cell for Hybrid Vehicle and Plug-in Hybrid Vehicle

Machiko Abe TOYOTA MOTOR CORPORATION, Japan

Development of New System for Light Duty Hybrid Truck

Nobutaka Suzuki Hino Motors, Ltd, Japan

E3 **Electric Vehicles**

Thermal simulation model for driving range improvements of electric vehicles

David Hemkemeyer FEV Europe GmbH, Germany

Integrating electric vehicles in electricity system models “ representing individual vehicles

Mikael Odenberger Chalmers University of Technology, Sweden

Development of New Generation Battery Management ECU

Masakazu Kouda DENSO CORPORATION, Japan

How to deal with underfloor protection

Alexander Betz Daimler AG, Germany

Plug-In Electric Vehicle Consumer Segments: Converts and Rebate Essentials

Brett Williams Center for Sustainable Energy (CSE), USA

Electric Vehicle Future for the automatic driving

Shinichi Yamaki TUV Rheinland Japan Ltd., Japan

E4 **Marketing & Car Sharing 3**

Expected benefits of regulating zero-emission vehicles offer

Marilou Gosselin Ministère du développement durable, de l'Environnement et Lutte contre les changements climatiques, Canada

The role of corporate leadership in driving the transition to electro-mobility

Sandra Roling The Climate Group, UK

The Impact of Market on Adjustment Direction of Fiscal and Tax Support Policies of Global Electric Vehicles and Future T

Hong Shi China Automotive Technology and Research Center, China

Driving the market for plug-in vehicles Lessons from Californias ZEV Mandate

Scott Hardman UC Davis, USA

Meta-analysis of new passenger car registrations scenarios

Bent Van den Adel German Aerospace Center, Germany

Understanding the importance of incentives on the adoption of electric vehicles in California

Alan Jenn University of California, Davis, USA

E5 *Electric Machines & Advanced Components for Transportation Systems*

Examination of a Linear Generator with a Variable Magnetic Flux for Free-Piston Engines.

Tatsuki Suzuki Shinshu University Faculty Engineering, Japan

Improved Core Loss Modelling of Electrical Traction Motors through simulation of Skin-Effect in Laminations

Sigrid Jacobs ArcelorMittal, Belgium

Efficiency Characteristics to the Ratio of Capacitor Voltage to Supply Voltage in Voltage Boost type SRM Drive Circuit

Sae Yamamoto Tokyo University of Science, Japan

A Novel Two Speed Planetary Transmission for Electric Vehicle Applications

Paul Walker University of Technology Sydney, Australia

Mechatronic Track Guidance for Tramways using -Synthesis Control Loop and specially developed Magnetic Sensors

Franz Mathias Jost Karlsruhe Institute of Technology, Germany

Performance analysis of a heat pump system with integrated desiccant for electric vehicles

Li Zhang Central Research Institute of Electric Power Industry, Japan

E6 *EV Charging Infrastructure 3*

New Developments and Standardization within DC-High Power Charging

Dieter Hanauer VDE Testing and Certification Institute, Germany

Fast charging stations with stationary batteries - A comparison of fast charging at highways and in cities

Simon Funke Fraunhofer ISI, Germany

Modes of fast charging: Rolling out fast chargers in cities and along corridors to meet the heterogeneity of needs among

Rick Wolbertus Amsterdam University of Applied Sciences, Netherlands

Monitoring of Usage and Evaluation of Lithium-Ion Battery System by Time Backtracking Method

Yu-hung Lin Industrial Technology Research Institute, Taiwan

User Perspectives on Electric Roads

Martin G. H. Gustavsson RISE Viktoria, Sweden

A New Soft-Switching Phase-Shift PWM-controlled Multi-Phase DC-DC Converter for EV Battery Charger Applications

Tomokazu Mishima Kobe University, Japan

E7 Fuel Cell and Battery Systems

A comparison of internal and external preheat methods for NMC batteries

Theodoros Kalogiannis Vrije University of Brussels, Belgium

New Tank Volume Estimation Method for Hydrogen Fueling

Shigehiro Yamaguchi Honda R&D Co., Ltd. Motorcycle R&D Center, Japan

High Durable and High Active Catalysts Supported on Electronically Conductive Oxide Supports for PEFC

Akihiro Iiyama University of Yamanashi, Japan

Development of electrolyte membranes apply on non-humidified intermediate temperature fuel cells

JIE YU Tokyo Metropolitan University, Japan

Study of short-circuiting as a mitigation strategy for CO poisoning in a segmented-in-series PEM fuel cell system

Velia Fabiola Valdes Lopez University College London, UK

Theoretical Background of Comparatively High Frequency Probing for Estimation of State of Health of Li-ion Battery

Atsuo Hatono University Kuala Lumpur, Malaysia

Wednesday, Oct 3 13:20-15:20

F1(Special Session) Wireless Power Transfer 4

Design and Implementation of Sensorless Vehicle Detection System for In-motion Wireless Power Transfer

Katsuhiko Hata The University of Tokyo, Japan

study of a dynamic wireless power transfer system based on parallel-series resonant topology

Toshiyuki Fujita Technova Inc., Japan

Evaluation of leakage magnetic field from two wireless power transfer systems for EV / PHV driven simultaneously

Toshiaki Watanabe TOYOTA CENTRAL R&D LABS., INC., Japan

Harmonization of WPT Testing procedures

Volker Blandow TÜV SÜD AG, Germany, China

The Future of Urban Mobility is Autonomous, Connected, Electric & Wireless

Graeme Davison Qualcomm, UK

F2(Special Session) Energy Storage Devices 2

DOE Battery and Electrification R&D Overview for FY 2017-2018

Steven Boyd U.S. Department of Energy, USA

Development of TOSHIBA LTO-based battery SCiB ϕ with both high energy and high power characteristics

Hidesato Saruwatari Toshiba Infrastructure Systems & Solutions Corporation, Japan

LIB for EVs: trends overviewed by materials manufacturers

Osamu Fujimura UBE INDUSTRIES, LTD., Japan

Safety Test Technology in Lithium-ion Batteries for xEV

Arata Okuyama ESPEC CORP., Japan

Phenomenological investigation of operando lithium-ion battery for automotive application

Sohei Suga Nissan Motor Co., Ltd., Japan

Comparison of pack and cell tests of lithium-ion batteries for electric vehicles

Yukitaka Matsuoka Japan Automobile Research Institute, Japan

F3 *Simulation & Analysis*

Quantitative analysis on standards about vibration of battery pack in pure electric vehicles

Zhichao Hou Tsinghua University, China

Concept for a holistic energy management for battery electric vehicles using genetic algorithms

Katharina Minnerup Technical University of Munich, Germany

Comprehensive Study about Force Control of Electric Vehicles -Application for Vehicle in the House-

Tomoki Emmei the University of Tokyo, Japan

Simulation of Dynamic Stresses on Battery Pack Holder Using Road Topology

Piyawat Paetanom King Mongkuts Institute of technology Ladkrabang, Thailand

Analysis and Model Validation of the Toyota Prius Prime

Jongryeol Jeong Argonne National Laboratory, USA

Power-split hybrid powertrain modeling and operation mode efficiency analysis

Siriorn Pitanuwat Nagoya University, Japan

F4 *Life Cycle Analysis*

Effects of integration of the electric mobility in the Italian energy sector: how to account for them in a LCA prospecti

Benedetta Marmiroli Vrije Universiteit Brussel, Belgium

The Life Cycle Energy Use and CO2 Emission Impact Assessment of Electro-Mobility of 2050 China

Boya Zhou China Automotive Technology & Research Center, China

Environmental evaluation of strategies that can reduce production impact of lithium-ion traction batteries

Linda Ager-Wick Ellingsen The Norwegian University of Science and Technology (NTNU), Norway

Water Issues and Electric Vehicles - Key Aspects and Examples in Life Cycle Assessment

Gerfried Jungmeier JOANNEUM RESEARCH, Austria

Lifecycle climate change tradeoffs with range in battery electric vehicle and fuel cell electric vehicles

Christine Roxanne Hung Norwegian University of Science and Technology, Norway

Maintenance and Repair Impacts on Electric Vehicles

Norbert Schreier Esslingen University of Applied Sciences, Germany

F5 Propulsion Systems & Motion Control Technologies

Predicting Powertrain Costs for Battery Electric Vehicles Based on Industry Trends and Component Teardowns

Michael Safoutin U.S. Environmental Protection Agency, USA

Improving electric city bus powertrain efficiency and costs using design space exploration

Ganesh Sethuraman TUMCREATE, Singapore

Appropriate Design of Plug-in Hybrid Electric Vehicle Drivetrains under Consideration of User Behaviour and Component St

Andre Ebel Research Institute of Automotive Engineering and Vehicle Engines Stuttgart (FKFS), Germany

AWD for Electric Vehicles - A Revolution for Vehicle Efficiency?

Christian Angerer Technical University of Munich, Germany

Motion control and multi-sensor modeling of the 4-axis propelled electric ship

Hiroshi Kudo The Nagaoka University of Technology, Japan

Stabilization of Vehicle Dynamics by Tire Digital Control

Keizo Akutagawa Bridgestone Corporation, Japan

F6 AC & DC Charging System

CharIN e.V. "The path to a global EV standard"

Claas Bracklo CharIN e.V., Germany

To what extent does mobility behavior change

Frank Ten Wolde APPM, Netherlands

eHighway - Electrified Heavy Duty Truck Transport

Benjamin Wickert Siemens AG, Germany

Reality of electric vehicle fast charger placement: node-serving, flow-capturing, or?

Yutaka Motoaki Idaho National Laboratory, USA

Process for Identifying Public Charging Stations in the Columbus Region

Bud Braughton City of Columbus, USA

1 Identifying Heterogeneous Electric Vehicle Charging Behavior: mixed usage of L1, L2, DC fast chargers

Jae Hyun Lee University of California, Davis, USA

F7 Fuel Cell Vehicles

Experimental activities on a PEFC based powertrain for a hybrid electric minibus

Laura Andoloro CNR ITAE, Italy

A Study on Power Distribution Methods between Fuel Cell and Li-Ion Battery for a Fuel Cell Garbage Truck

Daiki Katagiri Waseda university, Japan

Calculation Range for Different Electric, Hybrid and Fuel Cell Vehicles

Desiree Alcazar-Garcia UPC (Universitat Politècnica de Catalunya, Barcelona, Spain), Spain

Electricity as an energy carrier in transport “ cost and efficiency comparison of different pathways

Selma Brynolf Chalmers University of Technology, Sweden

Development of Hydrogen System for Burgman Fuel Cell

Tatsuki Sugiyama SUZUKI MOTOR CORPORATION, Japan

Experiments Investigation on Hydrogen Discharge of Fuel Cell Vehicle in A Simulated Enclosed Space

Dong Hao China automotive technology and research center, China

Dialogue Session

Monday, Oct 1 16:00-17:30

DS1 Electrical Drive 1

Electric Snowmobile Competition 2005-2017: An end of era?

Michael Golub Indiana University Purdue University Indianapolis, USA

Optimal design of a novel MR clutch for compact Electric vehicles

HUAN ZHANG The University of Wollongong, Australia

Real-time Collision Warning System Based on the Fusion of Vision and V2V

Jing-Yu Liu Chang'an University, China

Research of the Hardware in theLoop Simulation System

Jing-Yu Liu Chang'an University, China

Development and Promotion for Standardization of Charging Technology Accommodated to Electric Scooters in Taiwan

Li-Song Lin Industrial Technology Research Institute, Taiwan

Auto Parking System with Vision based parking lot detection system and Multi-steps control system

Tselin Lee Industrial Technology Research Institute, Taiwan

Numerical study on hybridization based on diesel ICE to motor assist mild HEV for preliminary concept design

Jungsoo Park Chosun University, Korea

First mobile blood donation bus in health service

Michal Sierszynski Solaris Bus & Coach SA, Poland

Average energy specific consumption of urban electric buses

Fabio Cignini University of Florence, Italy

Anne Y. Faxér RISE Research Institute of Sweden, Sweden

Electric cargo bike with a twist - A field test of two innovative bicycles concepts

Study on Engine power generation system for DPHEBus

Taeun Kim University of Ulsan, Korea

Multi-Objective Optimization of an Electric Vehicle Powertrain

Hamid A. Oral Siemens PLM, USA

An Empirical Study on CO2 Reduction Effect Measurement of Ultra-Compact Electric Vehicle in Japan

Hideki KATO Toyota Transportation Research Institute, Japan

Novel Non-invasive Sensor Probes for Capturing CAN Physical Signals from Outside Insulated Signal Cables

Koichi YANAGISAWA HIOKI E.E. Corporation, Japan

Ultra-Light Vehicle (ULV) for Urban Mobility

Hugo Gabele University Esslingen, Germany

Developing a hybrid powertrain and traction battery for a heavy duty urban vehicle

Greg Harris HORIBA MIRA Ltd, UK, UK

DS2 Electrical Drive 2

Development of Driving Cycle of Xian City Bus Based on Markov Chain

Yaohua Li Chang'an University, China

Model sizing methodology for light-duty vehicles using real-world cycle results and OEM's vehicle data

Severin Kamguia Simeu Argonne National Laboratory, USA

On ways of Increasing Fuel Economy in the Spread of Hybridized Heavy-Duty Vehicles

Namio Yamaguchi Osaka City University, Japan

A Novel Driving Cycle Generation Method Based on Cluster Analysis on Real-World Driving Data

Haiming Xie Tsinghua University, China

Development of Typical Driving Cycle of Xian City Bus Based on the Combination of Clustering and Markov Method

Yaohua Li Chang'an University, China

Development of the China Light-duty Passenger car Test Cycle

Liu Yu China Automotive Technology & Research Center, China

Driving style and energy consumption with everyday use of a plug-in hybrid electric vehicle

Magnus Hjälmdahl Linköping University, Sweden

DS3 Charging

EV charging evaluation as a resource of VPP

Yukio Shinoda Tokyo Electric Power Company Holdings, Japan

The system of dynamic wireless charging for transport using transmitter and receiver parameters adjustment

Rodions Saltanovs Transfoelectric, Latvia

Optimization of EV Fast Chargers in a Nordic Low Voltage Grid

Antonio Zecchino Technical University of Denmark (DTU), Denmark

DC fast charging at scale using DC-as-a-service

Daniel Bowermaster Electric Power Research Institute, USA

Combined charging solution for High power wireless power transfer and conductive charging system on the mass production

Kyoungjin Kim Renault Samsung Motors Korea, Korea

A study on V2V charging application in a park-and-ride

Antonino Genovese Italian National Agency for New Technologies, Energy and the Sustainable Economic Development (ENEA), Italy

DC fast charging infrastructure: legislation and market evolution in Europe

Tomoko Blech CHAdeMO Association, France

Multi-functional determination of locations for AC & DC charging stations in municipalities and along the highways

Simon Haverkamp P3 Group, Germany

Ultra-fast charging infrastructure for vehicle on-board ultracapacitors in urban public transportation applications

Fernando Ortenzi ENEA - Italian Agency for New Technologies, Energy and Sustainable Economic Development, Italy

Emergency charging system for EV using Parallel operation

Yong Eun Kim korea automotive technology institute, Korea

Distribution Switchboard for Slow Charger of EV able to Distribute Power as a Function of Available Power capacity

JaeSeok Lee korea automotive technology institute, Korea

Business Model Innovation for Non-Commercial Charging Infrastructure Sharing System in China

Xiaoyuan WU Tongji University, China

Towards EU-wide Interoperability of charging infrastructure for electric vehicles: the Belgian case

Cedric De Cauwer Vrije Universiteit Brussel, Belgium

SUN2WHEEL: An Autarchic Concept for EV Charging - A Business Case for Private and Company Customers

Marco Piffaretti Protoscar SA, Switzerland

Development for integrating charging infrastructure and power grid

Eiichi Horiuchi Mitsubishi Electric Corporation, Japan

Cancellation of Harmonic Magnetic Field emitted from Wireless Power Transfer by Use of a Four Coils Setup

Takuya Nayuki Central Research Institute of Electric Power Industry, Japan

Capabilities to reduce the grid connection power of High Power Charging parks for xEVs with connection to MV grids

Soeren Schrader P3 group, Germany

A novel energy system using Electric Vehicles for expanding renewable energy

Tomura Yoshiki Okayama prefectural University, Japan

Technology solutions to mitigate electricity cost for electric vehicle DC Fast Charging

Matteo Muratori NREL, USA

DS4 Energy Storage Systems I

Research of Performance on Lithium Titrivate Battery

Jianyu Liu North China University of Technology, China

48V Battery Pack Electrical Experiment Analysis and Equivalent Circuit Model Design Used in the Mild Hybrid System

Jinhyeong Park The Chungnam National University, Korea

SOC Estimation for MH-Ni Batteries Based on Improved Extended Kalman Filtering

Shuyu Xiao North China University of Technology, China

Fast Charge Power Prediction of Ni - MH Batteries

Shuyu Xiao North China University of Technology, China

Development of next generation electrode materials for lithium ion and sodium ion batteries

Nobuhiko Takeichi National Institute of Advanced Industrial Science and Technology (AIST), Japan

Integrated 1D-3D coupling analysis for optimization of battery cooling and EV performance describing UDDS driving cycle

Jungsoo Park Chosun University, Korea

Predictive Battery Thermal Management Strategy for Fast Charging Electric Vehicles

Bogdan Rosca TNO Automotive, Helmond, The Netherlands, Netherlands

Battery Pack State Estimation Algorithms “ model based development and estimation

Bogdan Rosca TNO, Netherlands

Influence of environmental stress factors on SOH of battery for electric-powered space applications

Mazhar Abbas Chungnam National University, Korea

Development of high capacity Lithium-ion batteries consisting of electrodes using iron-based current collector foil

Masanori Morishita Yamagata University, Japan

Key impact factors on cycling capacity evolution of commercial LTO based pouch cells

Md Sazzad Hosen Vrije Universiteit Brussel, Belgium

Thermal effect of fast-charging profiles on lithium-ion batteries

Joris Jaguemont Vrije Universiteit Brussel, Belgium

Evaluation Method of Battery State of Aging Based on Polarization Voltage

Peng Lin Beijing Institute of Technology, China

DS5 Propulsion Systems & Components

Evaluation of new hybrid electric vehicle drivetrain topologies

Sebastian Ruoff Karlsruhe Institute of Technology (KIT), Germany

In-Wheel Motor System for Enhanced EV Performance

Ahmed Abdelmaksoud University of Ontario Institute of Technology (UOIT), Canada

SYSTEM DESIGN AND INTEGRATION OF AN ELECTRIC DRIVE SYSTEM WITH SWITCHED RELUCTANCE MOTOR FOR PASSENGER CARS

Saphir Faid Punch Powertrain, Belgium

A Novel Dual Motor Two-Speed Direct Drive EV Powertrain

Jiageng Ruan University of Technology Sydney, Australia

Voltage Vector Selection Strategy of IPMSM-DTC System Used in EVs Based on Model Predictive Control

Yaohua Li Chang'an University, China

A Variable Amplitude Voltage Vector Selection Strategy Based on Predictive Control for the DTC in SPMSM

Yaohua Li Chang'an University, China

Development of Torque Vectoring Logic and Implementation for In-wheel Vehicle

Yong-hee Lee Hyundai Mobis, Korea

Study on Rotor Field Oriented Control of Electrically Excited Synchronous Motor

Yong Bao Tongji University, China

Development a New Model of Synchronesh Mechanism to optimization Manual Transmissions Electric Vehicle

Adhitya Muhammad Universitas Indonesia, Indonesia

Development and Optimization of Control Strategy of Electric Driving Mode for a Novel Compound Power-Split Hybrid Electr

Dengfeng Shen The Technical University of Berlin, Germany

Development of VCU for EV-Bus

Inho Kim University of Ulsan, Korea

Development of New Compact Hybrid System

Yuichi Uda Suzuki Motor Corporation, Japan

Tuesday, Oct 2 12:40-14:10

DS6 Electrical Drive 3

Nordic EV Outlook

Renske Schuitmaker International Energy Agency, France

Impact of CAV Technologies On Energy Consumption of Electrified Vehicles

Ehsan Sabri Islam Argonne National Laboratory, USA

Charging into a Shared Future: A Case Study on Electrifying Transportation Networking Companies (TNCs)

Catherine Teebay Forth, USA

Low Emission Vehicles Contestable Fund“ Supporting Electric Vehicle Innovation in New Zealand

Elizabeth Yeaman Energy Efficiency and Conservation Authority, New Zealand, New Zealand

User-centric vision for mobility and transport in Europe for 2030 based on a participatory approach: the role of electri

Thierry Coosemans Vrije Universiteit Brussel, Belgium

Transportation for All

Esther Pullido Forth, USA

The Influence of Electric Driving Range on Market Uptake of Electric Vehicles

Seiho Kim IHS Markit, Korea

Analysis of Effect of Returning Experience in the Charging Spot on Usage Satisfaction of Rental Cars and Perception

Young-jun Kang Jeju Research Institute, Korea

An Automatic Search to EV design variables using Reinforcement Learning

Tatsuhide Sakai HuiSen AI Technology Ltd., Japan

Moving a taxi sector to become electric: an innovative incentive scheme in Amsterdam

Milan Tamis Amsterdam University of Applied Sciences, Netherlands

Going Ultra Low: the UK's joint industry and Government marketing campaign

Stephanie Edwards UK Government, UK

Success or Failure: The German 300 Million — Funding Programm on Charging Infrastructure for EVs

Sven Lierzer BridgingIT GmbH, Germany

The Paris Agreement on Climate Protection “ Consequences for the Automotive Industries and their global competitiveness

Volker Blandow TUV SUD AG, Germany

A real world data based potential analysis of non-driving related in-vehicle activities in autonomous xEVs

Michael Haag Fraunhofer Institute of Industrial Engineering IAO, Germany

Ramping up the infrastructure “ framework conditions and new business opportunities in Germany

Juliane Bielinski Innovationszentrum Niedersachsen, Germany

Jeju Electric Vehicle Call Center

Sanghoon Son Jeju Research Institute, Korea

Proven Technology application of driverless electric vehicles at Businesspark Rivium near Rotterdam (Netherlands)

Reanne Boersma Delft University of Technology & University of Applied Sciences Rotterdam, Netherlands

Smart Charging Challenge

Jaap Burger ElaadNL Foundation, Netherlands

Context-based Intelligent Control with a Multiresolutional Management: A driver-individual Intelligent ACC

Meng Zhang Technische Universität Clausthal, Germany

DS7 Electrical Drive 4

Inherently Safe Design for Autonomous Driving Vehicles against Cyber Attacks

Kenji Sugihara Panasonic, Japan

A framework for designing and performing of virtual test drives concerning autonomous driving

Martin Kehrer Research Institute of Automotive Engineering and Vehicle Engines, Germany

Understanding the Adoption of Autonomous Vehicle Technology: A Case-Study of Tesla Owners

Rosaria M Berliner University of California, Davis, USA

Autonomous Vehicles as a Service Critical Review

Richard Merrett Mentor, A Siemens Business, UK

Towards new challenges for the modern public transport - development of manoeuvre supporting systems for the e-buses

Bartosz Patkowski Solaris Bus & Coach S.A., Poland

DS8 Infrastructure

Investigation on evaluation methods of hydrogen compatibility of austenitic stainless steels for automotive application

Junichiro Yamabe Kyushu University, Japan

A Study of Evaluating Method in Durability Test of EV Couplers For Battery-Swapping System

Kwangmin Kim Hanyang University, Korea

Second-Life Usage of EV Battery for Stationary Energy Storage Application

Naoyoshi Kachi CONNEXX SYSTEMS Corporation, Japan

The future of electric transport started yesterday

Maarten Linnenkamp Metropolitan Region Amsterdam-Electric (MRA-E), Netherlands

Smart management of electric fleet: use of renewable resources for effective green transport

Franciszek Sidorski Poznan University of Technology, Poland

Environmental Life Cycle Assessment of Next-generation Automobiles Installing New Polymers

Mikiaki Hasegawa The University of Tokyo, Japan

The State of Electric Vehicle Utility Regulations in the United States

Erika Myers Smart Electric Power Alliance, USA

Current and future use of Rare Earth Metals in Permanent Magnets for Electric Vehicles and other vehicles and the collec

Bert Witkamp AVERE, Belgium

Comparison of plug-in hybrids and fossil fuelled vehicles based on data collection of fast sampled signals

Stefan Pettersson RISE Viktoria, Sweden

Making an analysis tool for electrification of multiple types of transportation

Joakim Nyman RISE Viktoria, Sweden

THINK GLOBAL & ACT LOCAL “ e-mobility in the City of Offenbach

Janine Mielzarek Stadtwerke Offenbach Holding KOMM, Germany

Development of the Electromagnetic Design Method for the Automotive EMC Problems

Yuki Natsume Subaru Corporation, Japan

Optimization-based System Design of battery-electric City Bus Lines

Martin Ufert Dresden University of Technology, Germany

arbon vehicles in 2030: multicriteria analysis of cost competitiveness and environmental impacts

Anne Bouter IFPEN, France

DS9 Energy Storage Systems 2

Li-ion battery market for specialty EVs 2018-2028

Lorenzo Grande IDTechEx, Germany

Supercapacitors Health Prognosis for Vehicular Applications

Hamid Gualous University of Caen Normandy, France

Model Development of Electric Vehicles Based on Test Data Analysis

Namwook Kim Hanyang University, Korea

A Fuzzy Logic Based Control Strategy of Hybrid Power Sources for Electrical Vehicles

Chunhua Zheng Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences., China

Analysis and Application of the Development Process of Battery Systems for Electric Vehicles

Jona Ebertz Karlsruhe Institute of Technology (KIT), Germany

Quick Charging Strategy Based on Temperature Characteristics

Jiaxing He North China University of Technology, China

Suppression-effect of The Bubbles in Hydrogen Reactor Fueled by NaBH₄ under Pressure Condition

Yuri Naito The Tokyo University of Science, Japan

Model Development of Age Sensitive Charging Strategies for Automotive Applications

Walter Legerstee Rotterdam University of Applied Sciences, Netherlands

Methodology to estimate worst case driving profile for electric vehicles

Shrivatsal Sharma Mahindra Electric Mobility Limited, India, India

EV power train topologies for electric road applications

Anton Karlsson Lund University Faculty of Engineering, Sweden

The market survey for the lithium-ion battery production in Indian climate of high temperature and humidity

Kazuo Chiba itsEV.inc, Japan

DS10 Electric Machines & Control Technologies

Improved Core Loss Estimation based on Magnetic Field Analysis in the Stator Core of Interior Permanent Magnet Machines

Kyoung-jin Ko Hyundai Mobis Co., Ltd., Korea

Bird's eye view on solutions to address NVH of electric motors

Fabien Chauvicourt Siemens Industry Software NV, Belgium

Design Optimization Tool of a Synchronous Reluctance Machine based on Steady State Performance Prediction by Harmonic An

Yassine Benomar Vrije Universiteit Brussel, Belgium

DEMYSTIFYING RARE EARTHS SUPPLY AS AN ENABLER OF SYNCHRONOUS PERMANENT MAGNET MOTOR ADOPTION

JOSE RAMON GARCIA SANTAMARIA Head of Marketing, Lynas Corporations, Malaysia

Design of a High Power Switched Reluctance Motor for Electric Vehicle

Nanaho Kawata Tokyo Institute of Technology, Japan

Development of Double-Rotor Vernier Permanent-Magnet Machine for Electric Vehicle Applications

Christopher H. T. Lee Massachusetts of Technology, USA

High Power Density PM Motors for Electric Vehicle Applications

RAMA LAKSHMI SURESH NIMMANA TOKYO INSTITUTE OF TECHNOLOGY, Japan

Problems of temperature distribution in electric motors for mounting in a wheel hub

Piotr Dukalski Institute of Electrical Drives and Machines, Poland

Performance Comparison Study of Wound Field Synchronous Motor and Interior Permanent Magnet Synchronous Motor

Shigeo Sakurai Meidensha Corporation, Japan

Design of Flux-switching DC-field Machines with Harmonics Suppression

Libing Cao The University of Hong Kong, China

Development of Vehicle Collision Avoidance System based on Impedance Control Approach

Mi-Ching Tsai National Cheng Kung University, Taiwan

A Feedback Linearization Technique for Vehicle Stability Control Based on a New Lateral Dynamic Model

Weimiao Yang Shanghai Jiao Tong University, China

DS11 Power Electronic Components

A Study of the Packaging Design for the Power Control Unit using SiC Power Semiconductor Devices for Electric Vehicle

Seongjun Lee Chosun University, Korea

OPTIMIZATION OF A LOW WEIGHT ELECTRONIC DIFFERENTIAL FOR LEVs

Alfonso Gago-Calderon Universidad de Mlaga, Spain

Smart Inverter for Micro EV capable of Driving and Charging

YONG EUN KIM korea automotive technology institute, Korea

Development of a 400V/1000A inverter for testing electric drivetrains

Zoltan Szeli Szechenyi Istvan University, Hungary

SiC based Onboard Charger using Peak Current Mode Control

