

## CONFERENCE PROGRAM – WEDNESDAY, JUNE 21, 2023

Time	
	Fuel Cell; Session Chairperson: Prof. H. Rottengruber – Otto von Guericke University Magdeburg
09:00	Use cases of hydrogen – reasons for choosing it as a fuel and energy carrier Dr. R. von Helmholt – PGUB Management Consultants GmbH
09:45	Design and Implementation of the Fuel Cell Test Benches at the Center for Method Development S. C. Konradt, Prof. H. Rottengruber – Otto von Guericke University Magdeburg
10:15	EU Type Approval and Certification of Components or Hydrogen-Powered Vehicles M. Sekura – TÜV Süd Product Service GmbH; T. Frohn – TÜV Süd Auto Service GmbH
10:45	Coffee Break
	Electric Aviation; Session Chairperson: H. Iancu – AVL List GmbH
11:15	Systems engineering methodology on a multi- integration test environment for fuel cell flight propulsion systems G. Hacker, J. Fritz – AVL List GmbH; C. Bever, I. Thiele – AVL Deutschland GmbH; Dr. C. Bänsch, J. Weiss, Dr. D. Diarra – German Aerospace Center
11:45	Validation Platform for eVTOL Propulsion Systems S. Dillmann, Dr. L. F. Berg, Prof. M. Doppelbauer, S. Reuter, F. Schmidt, J. Böckelmann, A. Schröder – Fraunhofer Institute for Chemical Technology ICT
12:15	Powertrain Testing and Integration for an eVTOL Aircraft Facing Certification L. Wollenburg, Z. Shakil – Lilium eAircraft GmbH
12:45	Lunch

Time	
	Transformation; Session Chairperson: F. von Neffe – AVL Deutschland GmbH
14:00	Efficient validation through the use of highly automated test bed systems for HV powertrains and the complete vehicle M. Decker, D. Weleba – AVL List GmbH
14:30	Construction of a Test Bench for Dynamic Wireless Power Transfer Systems L. Elbracht, Ch. Grüner – Institute of Electrical Energy Conversion, University of Stuttgart
15:00	Testing and Validation of a Solar-Electric Vehicle M. Volmer – Sono Motors GmbH
15:30	Transformation of an Industry – Energy Conversion and Data Use as an Opportunity F. Loogen – e-mobil BW GmbH
16:00	Closing Remarks R. Jeutter – AVL Deutschland GmbH
16:15	End of Symposium



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JUNE 20. – 21. | WÜRZBURG | GERMANY

# CONFERENCE PROGRAM – TUESDAY, JUNE 20, 2023

Time	
	Opening and Keynotes; Session Chairperson: Dr. R. Teichmann – AVL List GmbH
09:00	Welcome and Opening of the Symposium Prof. H. List – AVL List GmbH
09:15	The Evolution of the Electric Powertrain: Technology, Trends and Implications for Future Testing Prof. M. Jaensch – Technical University of Munich
10:00	Connecting Component Test Benches – Challenges and Way Forward A. Vijay, Dr. Ch. Trapp – University of the Bundeswehr Munich; F. Heckert – German Aerospace Center
10:30	Efficient Testing of Electrified Powertrains through Networked Component Test Benches Dr. Ch. Schyr – AVL Deutschland GmbH; K. Bause, K. Wolter – Karlsruhe Institute of Technology
11:00	Coffee Break
	Electric Powertrain; Session Chairperson: Prof. M. Jaensch – Technical University of Munich
11:30	Virtual Testing R. Banzhaf – Porsche Engineering Services GmbH
12:00	Electric Motor Mounting System Validation With Subsystem and Powered E-axle Tests E. Kruse, Dr. H. Sell, Dr. F. Löcken – Vibracoustic SE & Co. KG
12:30	New Challenges in the Acoustic Evaluation of Electric Powertrains Dr. T. Luft, Dr. S. Schneider, Prof. H. Rottengruber – Otto von Guericke University Magdeburg
13:00	Lunch

Time	
	Battery; Session Chairperson: Prof. H. G. Schweiger – Technische Hochschule Ingolstadt
14:30	Combining Testing and Digital Development – A Battery Fast-Charging Analysis Dr. J. Richter, Dr. A. Schmidt, Dr. M. Schönleber – Batemo GmbH
15:00	Investigation of the Remaining Service Life of Li-Ion Batteries in Cell Development: Precise Measurements for Rapid Prediction of Cell Life D. Schürholz, Dr. B. Schweighofer, Prof. H. Wegleiter – Graz University of Technology
15:30	Composite Technologies for Next Generation BEV – Advanced HV Battery System Development Aided by Digital Tools & Sophisticated Validation Methods Dr. B. Lüddecke, H. Atsbha, Dr. A. Petcu, J. Roscher, Dr. K. Bayramkulov, Dr. M. Lipperheide, F. Haas, Dr. R. W. Jorach – Kautex Textron GmbH & Co. KG
16:00	Coffee Break
	E-Motor; Session Chairperson: Prof. N. Parspour – University of Stuttgart
16:30	Power and Efficiency Analysis on High-Performance Electric Powertrains in Test Benches and Test Vehicles J. Mathä – CSM GmbH
17:00	Aging Mechanisms and Lifetime Modeling of Electric Traction Machines T. Petri – Robert Bosch GmbH; Prof. N. Parspour – Institute of Electrical Energy Conversion, University of Stuttgart
17:30	Torque Increase by Maximizing Current Density Using a Direct Fluid Conductor Cooling System M. Adebahr, M. Hempel, D. Jahnke – Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM

18:00	Electric Powertrains – Rotor Temperature Measurement Supporting the E-motor's Calibration and Thermal Safety A. Poms, Prof. H. Wegleiter, Dr. B. Schweighofer – Graz University of Technology; Dr. H. Philipp, A. Sinmaz, G. Máté Kiss, M. Probst, Dr. E. Winklhofer – AVL List GmbH; T. Oberholz – AVL Schrick GmbH
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