electronica Automotive Conference
November 14, 2022, ICM - International Congress Center Messe München

Time	Opening and Keynote session, Room 14b					
09:00	**Conference Opening** by Dr. Reinhard Pfeiffer, Messe München and Peter Gresch, OptE GP Consulting					
09:15	**Keynote 1:** Karsten Michels, Continental: Software-defined Vehicle creates new Hardware Challenges					
09:40	**Keynote 2:** Dhruv Jain, Varroc Group: India – the next China?					
10:05	**Keynote 3:** Wolfram Harnack, ROHM Semiconductor: Silicon Carbide Global Supply Chain and the Impact on E-mobility Development					
10:30	**Keynote 4:** Stephan Berlitz, AUDI: Digital light for digital life					
10:55	Coffee break					

	Room 2		Room 5		Room 4	
Chair	**Supply Chain/Sustainability** Dr. Wolfgang Bochtler, Member of Advisory Board		**New EE Architectures 1** Hans Adlkofer, Infineon Technologies		**E-Mobility 1** Josef Schriek, PGUB Management Consultants	
11:30	Turning a crisis into an opportunity – how ZF Group applied lessons learned from the Semiconductor shortages	Fabian Schlegel, ZF Group	New E/E architecture enabled by semiconductors	Peter Schäfer, Infineon Technologies	CCS based bidirectional charging Insights into the energy – e-mobility connection	Dr. Stephan Hell, Kostal
12:00	Challenges of supply chain	Hans Ehm, Infineon Technologies	Improved ADAS Safety by Digital Code Modulation Radar	Ralf Reuter, Uhnder	MCS, the Megawatt Charging System – The CharIN perspective on fields of E-Mobility applications	Claas Bracklo, Char-IN
12:30	Sustainability meets wiring systems components	Nils Braun, Martin Bleicher, TE Connectivity	Enabling a Software-defined Supercomputer on Wheels	Felix Friedmann, Nvidia	E-Mobility Upscaling – Challenges for Switch and Protect in HV Battery Systems	Ralf Schmidt, DRÄXLMAIER Group
13:00	Lunch break					
14:00	Impulse Speeches: ASEAN – The Next Big Thing, Jochen Siebert, JSC Automotive Aviation on the way towards more electric and autonomous, current status and outlook, Dr. Grzegorz Ombach, Airbus Electrification					
14:45	Coffee break					

Chair	**New EE Architectures 2** Martin Schleicher, Continental		**Smart Interior** Robert Kraus, INOVA Semiconductors		**E-Mobility 2** Jürgen Weyer, Ideas&Motion	
15:00	Zonal Modules in the Service-Oriented E/E Architecture – Opportunities and Challenges	Dr. Olaf Lüdtke, FORVIA	Next level of smart car access and interior experience	Jürgen Keller, Marquardt	NXP and Fraunhofer IISB collaborate on innovation of Advanced BMS Solutions	Antonio Leone, NXP Semiconductors Martin Wenger, Fraunhofer IISB
15:30	How the Automotive OS disrupts the way we develop software	Moritz Neukirchner, Elektrobit	Elmos – Smart Lidar components for sub € 50 short range Lidar systems	Fabian Finkeldey, Mechaless Systems Member of the Elmos Group	Inverter operation at the thermal limit	Dr. Alexander Rambetius, Valeo
16:00	Hardware parity between vehicle and cloud – next generation work benches for software defined vehicles	Patrick Bartsch, Amazon Web Services (AWS)	The optical revolution: How light and sensors are redefining the concept of driving	Pierre Laboisse, ams OSRAM Group	Realizing an Immersive Cabin Experience	Andy McLean, Analog Devices
16:30	Final break					
17:00	**CEO – Roundtable**					

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Track 1, Room 11a
Moderator: Frédéric Plasson

Time	Track No.	Power Electronics	
09:50		Conference Opening Track 1	
10:00	1.1	New GaN solutions with EcoGaN	Kenichi Yoshimochi, Rohm Semiconductor
10:30	1.3	The challenges & possibilities of GaN devices in Parallel	Dr. Nirmana Perera, Cambridge GaN Devices
11:00		Coffee Break	
		Power Supply	
11:30	1.4	A high-speed and high-accuracy power device waveform simulation method	Makoto Murata, Rohm Semiconductor
12:00	1.5	Peak load power management by DC-DC converters	Mr. Mikael Appelberg, Flex Power Modules
12:30	1.6	Predictable transient analysis using SIMPLIS for next generation of embedded processors	Marisol Cabrera, Monolithic Power Systems
13:00		Lunch break	
		Battery	
14:00	1.7	Long-Term Polygraphic Monitoring through MEMS and Charge Transfer for Low-Power Wearable Applications	Dr. Alessandro Gumiero, STMicroelectronics
14:30	1.8	ROHM sustainable IoT device solution; Ultra-low power consumption power supply IC and battery charging IC for the ultra-thin rechargeable battery	Kazuhiro Murakami, Rohm Semiconductor
15:00	1.9	Ensuring functionality and power supply of future developments	David Richardson & Leon Wanless, VARTA Microbattery
15:30		Coffee Break	
		FPGA	
16:00	1.10	Open source toolchain for the development of FPGAs of multiple vendors	Dr. Thomas Kuhn, HTV
16:30	1.11	Total Cost of Ownership for GateMate FPGA	Dr. Michael Gude, Cologne Chip
17:00	1.12	High-Performance FPGA Power Supply Solutions	Thomas Fenn & Jens Hedrich, Monolithic Power Systems
17:30		End of Conference	

Track 2, Room 11b
Moderator: Siegfried Weigert, ibw industrieberatung weigert

Track No.	Artificial Intelligence	
	Conference Opening Track 2	
2.1	Megatrend artificial intelligence – challenges and case studies	Holger Heidenblut , Elma Electronic
2.2	Advancing Endpoint Intelligence	Suad Jusuf, Renesas Electronics
2.3	Embedded Machine Learning with TinyML	Klaus-Dieter Walter, SSV Software Systems
	Coffee Break	
	Artificial Intelligence	
2.4	Open Source drivers for Machine Learning accelerators	Dr. Markus Edel, Collabora
2.5	Machine Learning for Industrial Vision Systems	Ian Ferguson, Lynx Software Technologies
2.6	Neuromorphic Chips – The Revolution for Embedded Systems?	Dr. Gunter Spanner, VHS Electronics
	Lunch break	
	Sensors	
2.7	Machine Learning On-Sensors: Next Generation of Low Power Smart Sensors for energy-efficient and intelligent IoT devices	Andrea Ronco , ETH Zurich
2.8	Multiconnectivity asset tracking for indoor and outdoor applications	Dr. Carmen Brigante, STMicroelectronics
2.9	Simplify Remote Nodes by Robustly Extending I2C and SPI Serial Buses Over Long Distances	Dr. Eric Benedict, Analog Devices
	Coffee Break	
	Sensors	
2.10	Energy saving potentials by using radar in smart homes	Anja Schmalzl, Infineon Technologies
2.11	Networked Sensors thanks to Single Pair Ethernet (SPE)	Dr. Karsten Walther, Perinet
	End of Conference	

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Track 3, Room 12a
Moderator: Siegfried W. Best

Time	Track No.	Communication & Wireless	
09:20		Conference Opening Track 3	
09:30	3.1	Revolutionizing IoT Connectivity with Next-Generation Network Technologies	Eyal Yasmin, Telit
10:00	3.2	Understanding the importance of TSN and multi-gigabit Ethernet up to 10GBit/s in industrial and automotive applications	Goran Filimonovic, Toshiba Electronics Europe
10:30	3.3	HTTP server implementation on a micro-controller using different frameworks and libraries, performance benchmark and analysis	Sergey Lyubka, Cesanta
11:00		Coffee Break	
		Communication & Wireless	
11:30	3.4	Ultra-wideband Technology – Adding localization and Security	Mathias Laursen, LitePoint
12:00	3.5	Antenna integration: 3 ways to double the communication range of your IoT device	Jukka Sjöstedt, Radientum
12:30	3.6	Antenna design accelerated with digital twin technology	Johan Pedersen, Ignion
13:00		Lunch Break	
		Software	
14:00	3.7	Unikernels and their relevance for deployment in mission critical applications	Ian Ferguson, Lynx Software Technologies
14:30	3.8	Software Platform using Zephyr and Container, a path to answer the CPU multi-sourcing issue	Nicolas Guilbaud, Lacroix
15:00	3.9	Open Loop Testing – The missing link for platform testing?	Daniel Penning, embeff
15:30		Coffee Break	
		Software Defined Vehicle	
16:00	3.10	The Foundation for an Open and Intelligent Mobility Edge: Software-Defined Vehicles, Road-Side Units, Linux, Containers and Open Horizon	Alexander Körner, IBM Deutschland
16:30	3.11	How to make the Software Defined Vehicle a Reality	Thomas Brown, NXP Semiconductors
17:00	3.12	Centralized Automotive Sensor Fusion – Solving the Challenges for Enhanced Autonomous Vehicle and ADAS Perception	Pier Paolo Porta, Ambarella
17:30		End of Conference	

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