

5 - 6 DECEMBER 2018

PALAIS DES CONGRÈS
DE VERSAILLES,
FRANCE

International Conference and Exhibition

SIA CESA 5.0

Automotive electronics, components
and systems for new mobility

PROGRAMME



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OUR EXHIBITORS





ABOUT CESA

Dr. Jochen Langheim

VP Advanced Systems R&D
Projects, STMicroelectronics
Chairman EURIPIDES
VP MOVEO International
SIA CESA Chairman

SIA CESA 5.0 the international conference on automotive electronics, components and systems is taken place on 5 & 6 December 2018 in Versailles.

Our goal is to build the bridge between traditional automotive electronics and the new developments in vehicle electrification and digitalization as well as those from the world of consumer electronics and the Internet of Things.

This is a major opportunity to understand how the automotive business will evolve over the next five years, with a focus on products and services that are likely to transition from other markets into use-cases for automotive.

Electronics content is growing in every product thanks to miniaturization of circuits, new business models, new actors and beyond this a changed perception of the environment which has consequences for industry in general, not only for the automotive one.

SIA CESA is an event that explains the technological breakthroughs, technical barriers and other influencing factors for our industry such as standards, rules and laws.

Engineering and business unit managers as well as technical experts from the automotive world are gathered today to exchange on these subjects with colleagues from adjacent domains such as infrastructure, communication, Telco providers, insurance, consumer electronics and law.

Our sponsors and partners will show in a dedicated exhibition area their latest products and technologies contributing to the future of the automobile industry.

Thank you for your participation in this great event!

COMMITTEES

Conference Chair

Jochen LANGHEIM
STMicroelectronics

Executive Council

AUFRERE Christophe, Faurecia
BASTIEN Rémi, Renault
CARRIE Heiko, Bosch
DEVAUCHELLE Guillaume, Valeo
GOHIN Carla, Groupe PSA
GROS Hervé, SIA
MARBACH Luc, VEDECOM

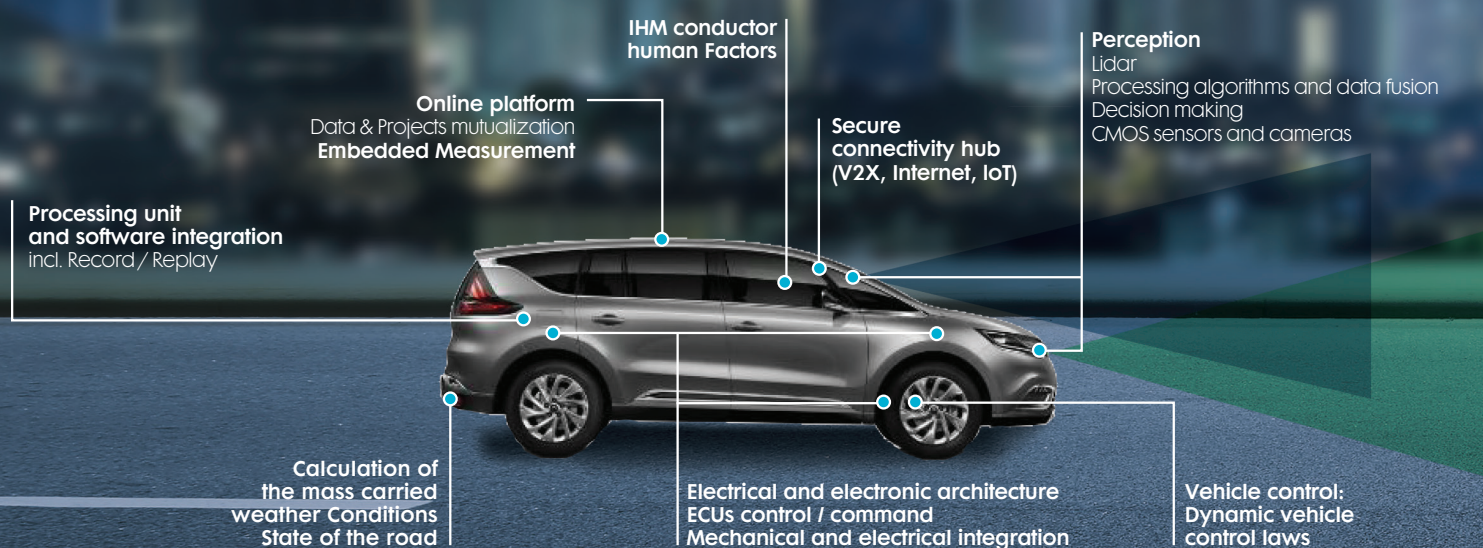
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ROINE David, Valeo
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security ICs for personal convenience
and connectivity:
We make cars smarter.



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PROGRAMME 5 DECEMBER 2018

■ Richelieu Room
■ Condé Room
■ Colbert Room

CHANGE THE INDUSTRY: AUTOMOTIVE ELECTRONICS

Welcome : Hervé Gros, SIA

- 09:00 > CESA Opening
Jochen LANGHEIM, *ST Microelectronics*
- 09:10 > Electronics, a key technology for the car of tomorrow
Marc MORTUREUX, *General Manager - PFA*
- 09:30 > The car of tomorrow, a key application for electronics
Thierry TINGAUD, *President Strategic Committee Electronics & President STMicroelectronics France*
- 10:00 > Innovation, cooperation in connected, autonomous e-mobility
Rémi BASTIEN, *VP Renault and President - MOVEO & VEDECOM*

ROUND TABLE

Animator: Rémi CORNUBERT, Advancy

- 10:30 > Round Table
Rémi CORNUBERT, *Senior Partner - Advancy*
Guillaume DEVAUCHELLE, *Director Innovation & Scientific development - Valeo*
François GAILLARD, *Head of autonomous and connected cars - Groupe PSA*
Gilles MABIRE, *Président - Continental France*
Colette MALONEY, *Head of Unit - European commission DG CNCT*
Jean-Louis PECH, *CEO ACTIA*

11:15 > COFFEE BREAK IN THE EXHIBITION

MOBILITY DISRUPTIONS: E-MOBILITY IN GENERAL

Chairman: Pierre Lebrun, Valeo

MOBILITY DISRUPTION: HIGHLY AUTOMATED DRIVING

Chairman: Vanessa Picron, Valeo

MOBILITY DISRUPTION: SERVICES

Chairman: Louis-Claude Vrignaud, Continental

- | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>11:45 > Contribution of light and heavy vehicles to reducing energy demand and CO₂ emissions by 2035 worldwide
Jean Luc BROSSARD, <i>PFA</i>
Gabriel DUQUESNOY, <i>BIPE</i></p> | <p>Getting ahead with the French Program on Autonomous Vehicles
Jean-François SENCERIN, <i>PFA / Renault</i></p> | <p>SCOOOP Services
El Khamis KADIRI, <i>Groupe PSA</i></p> |
| <p>12:00 > An economic view on Electromobility in China
Peter GRESCH, Jochen SIEBERT, <i>PGUB & JSC</i></p> | <p>Easymile, a French Success Story - where is it going from here?
Benoit PERRIN, <i>Easymile</i></p> | <p>A safe and energy efficient driving with the cloud vision of the route ahead using an in vehicle eHorizon client.
Bruno COUDOIN, <i>Continental</i></p> |
| <p>12:15 > Batteries and BMS Industrialisation of batteries - what is needed in France and Europe
Marianna CHAMI, <i>CEA</i>
Jean Bernard LEPAGE, <i>Faurecia</i></p> | <p>HAD experiments
Laurent TAUPIN, <i>Groupe Renault</i>
Veronique BERTEAU, <i>RATP</i></p> | <p>How IOT based Autonomous Driving can help cities to reduce Air Pollution
Ralf WILLENBROCK, <i>T-Systems</i></p> |
| <p>12:30 > Infrastructure needed to implement electric mobility
Joseph BERETTA, <i>Avere</i>
Yuhui XIONG, <i>Bipe</i></p> | <p>Autonomous driving & mobility in general (with look on intermodality)
Patricia VILLOSLADA, <i>Transdev</i></p> | <p>Exploitation of road infrastructure and traffic management: integrate the connected car
Jean Laurent FRANCHINEAU, <i>VEDECOM</i></p> |
| <p>12:45 > Panel discussion</p> | <p>Panel discussion</p> | <p>Panel discussion</p> |

13:00 > LUNCH BREAK IN THE EXHIBITION

ORGANISATION & COMPETENCE DISRUPTIONS IN E-MOBILITY: CHARGING, INFRASTRUCTURE, ENGINEERING

Chairman: Jean-Luc Brossard, PFA

AUTONOMOUS DRIVING CHALLENGE: AI AND SAFETY

Chairman: Jean-François Sencerin, Renault

MOBILITY DISRUPTION: V2X & INFRASTRUCTURE / ARCHITECTURE

Chairman: El Khamis Kadiri, PSA

- | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p>14:15 > Trends in electric vehicle design: Insights on best practices for paving the road for mass-market electric vehicles
Thomas MOREL & Mauro ERRIQUEZ, <i>McKinsey & Company</i>
Pierre-Yves MOULIERE, <i>A2Mac1</i></p> | <p>Using AI to remove the roadblocks for AV
Amir KLUG, <i>STMicroelectronics</i></p> | <p>Europe Prepares for Mass Deployment of C-ITS
Onn HARAN, <i>Autotalks</i></p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|

PROGRAMME 5 DECEMBER 2018

■ Richelieu Room
■ Condé Room
■ Colbert Room

14:30	>	From ICE to EV: the competition is also about competences and engineering approach <i>Patrick BASTARD, Groupe Renault</i>	Towards safe, robust and secure AI <i>Christoph PEYLO, Bosch</i>	Building a 5 G network serving the automotive needs <i>Maxime FLAMENT, 5GAA</i>
14:45	>	AllCharge - an User-Centric Solution for Traction and Charging <i>Christophe MARECHAL, Friedrich GRAF & Martin BRULL, Continental</i>	Safety and automated planning <i>Christophe GUETTIER, Safran</i>	Empowering the Future of Autonomous Driving <i>Aleksandar MOMCILOVIC, Huawei</i>
15:00	>	High Power Charging – more than a thermal challenge <i>Michael ZEYEN, Vancom</i>	Applicability of Airborn and Train safety processes to Automotive AD <i>Julien FOUTH, Segula Matra Automotive</i>	Making sense of V2X: Communications industry vs. automotive industry vs. DSRC vs. C-V2X vs. USA vs. Europe vs. China <i>Kevin THOMPSON, Keysight</i>
15:15	>	Panel Discussion	Panel Discussion	Panel Discussion
15:30	>	COFFEE BREAK IN THE EXHIBITION		
		AUTONOMOUS DRIVING CHALLENGE: HUMAN FACTORS & ROAD SAFETY Chairman: Anne Guillaume, Renault	TECHNOLOGY DISRUPTIONS IN E-MOBILITY: SEMICONDUCTORS, PACKAGING Chairman: Andy Toulemonde, Infineon	MOBILITY DISRUPTION: CONNECTED CAR, DATA USAGE & HPC Chairman: Paul Schimmerling, SIA
16:00	>	Introduction about road safety and ADAS & comparison with aeronautics <i>Anne GUILLAUME, LAB</i>	Wide Bandgap semiconductors in xEV applications <i>Laurent BEAURENAUT, Infineon</i>	Multi-source 3D capture and reconstruction of road environments for autonomous navigation: results, locks and trends from a geospatial data infrastructure point of view <i>Nicolas PAPARODITIS, IGN</i>
16:10	>	VEDECOM experiments on taking control back <i>Mercedes BUENO-GARCIA, VEDECOM</i>		
16:20	>	Benefits and limits of autonomous vehicles <i>Jeremy VERGNAUD, UTAC CERAM</i> <i>Pierre-Jean LE BEC, UTAC CERAM</i>	Trends in Power Electronics impacting E-Mobility <i>Manuel GAERTNER, STMicroelectronics</i>	Combined Optimal Control and Machine Learning technics, for Connected Hybrid Electrified Vehicles <i>Mariano SANS & Christophe MARECHAL, Continental</i>
16:30	>	Holistic HMI architecture for Adaptive and Predictive car interiors <i>Frederic FONSALAS, Faurecia</i>		
16:40	>	Panel discussion	Powering up Electronics- latest developments and concepts for packaging of electronics in automotive systems» <i>Hannes STAHR, AT&S</i>	Future of car insurance: AI assessing driving risk based on real time data from ADAS sensors and digital maps <i>Gerard YAHIAOUI, Nexyad</i>
17:00	>	Panel discussion	Packaging as Enabler for Next Generation Power Electronics <i>Eckart HOENE, Fraunhofer IZM</i>	Embedded High Performance Computing <i>Philippe NOTTON, Atos</i>
17:20	>	Panel Discussion	Panel Discussion	Panel Discussion
17:30	>	COFFEE BREAK		
18:00	>	Keynote and discussion with Patrick Pelata <i>Patrick PELATA former COO of Renault and EVP of Nissan</i> In charge of a mission on automotive industry and new mobilities for the French Government Meta Strategy Consulting's CEO		
19:30	>	COCKTAIL		
21:00	>	End of day 1		

PROGRAMME 6 DECEMBER 2018

08:30 > Introduction • Jean-Luc BROSSARD, PFA

KEYNOTES

Chairman: Hervé Gros, SIA

08:50 > The future of automotive with Electronics seen by an OEM
Carla GOHIN, Head of Research, Innovation and Advanced Technologies, PSA Groupe

09:10 > The future of automotive with Electronics seen by a Tier 1
Jean-François TARABBIA, Senior Vice-President, Research & Development and Product Marketing - Valeo

09:30 > COFFEE BREAK IN THE EXHIBITION

SPECIAL SESSION:
SMART ELECTRONICS SYSTEMS
Chairman: Wolfgang Gessner, VDI/VDE

SPECIAL SESSION:
PHOTONICS
Chairman: VEDECOM

SPECIAL SESSION:
AIOTI
Chairman: François Fischer, ERTICO

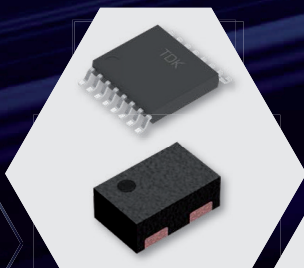
10:00 >	Smart electronics systems : the challenges of interconnexion Thomas BEAUCHENE, Raydiall	Market Overview Photonics in Automotive Nok WONGWANCHAI, Epic	Autonomous car service for Tourists in Versailles Gilles LE CALVEZ, Vedecom
10:20 >	Opportunities in Advanced Sensors in Perception & Machine Cognitive function Ken BRIZEL, ACAMP	Challenges in optical devices for Lidar Laurent DEMEZET, Hamamatsu	Automotive meets ICT – enabling the shift of value creation supported by European R&D Eric ARMENGAUD, AVL
10:40 >	Data analysis / Application of neural networks in industry, automotive and medical applications for predictive maintenance and increased customer value Philipp SCHMID, CSEM	VCSEL technology for automotive sensing Holger MOENCH, Philips	Autonomous Driving: Cybersecurity Risk Analysis Vincenzo DI MASSA & Gianluca MANDO, Thales
11:00 >	Energy Management, Temperature Management, Reliability and integration of smart systems Sven RZEPKA, Fraunhofer ENAS	Packaging of optical components Ignazio PIACENTINI, Ficontec	IOT in automotive David ROINE, Valeo
11:20 >	Panel discussion	Panel discussion	Panel discussion
	TECHNOLOGY DISRUPTIONS IN E-MOBILITY: BATTERIES Chairman: Philippe Aumont, SIA	DEVELOPMENT CHALLENGE: TESTING, VALIDATION, SIMULATION Chairman: Pierre-Yves Geels, Segula Matra Automotive	MOBILITY DISRUPTION: LEGAL, PEOPLE, SOCIETY, PRIVACY, INSURANCE Chairman: Jean-Laurent Franchineau, VEDECOM
11:40 >	Silicon based high performance EV batteries Yohan OUDART, Nanomakers	Interaction of Simulation and Proving Ground Test for Autonomous Driving Functions Hans-Peter SCHONER, Daimler	Autonomous and connected car - new usages, new threats, new police processes Colonel Julien BURLET, Gendarmerie Nationale
12:00 >	Electronic system to detect gas or cooling liquid leakage, smoke and overtemperature in the battery tray for electric or hybrid vehicles Lionel BITAULD & Joseph BOSNJAK, Dura	Automotive Radar testing taken to new dimensions Sherif AHMED, Rohde&Schwarz	GDPR - general introduction Felicien VALLET, CNIL
12:20 >	Battery Management System Xavier FORNARI, Ansys	Test of connected and autonomous vehicles Alain PIPERNO, UTAC	The GDPR and its application in IoT and connected car - opportunities for business and competitiveness Gaelle KERMORGANT, Jurist
12:40 >	A revolutionary method for decreasing cell self-discharge measurement from months to hours Oliver ZURANSKI, Keysight	Smart charging management for fleets and car pools Dirk GROßMANN, Vector	Panel discussion with Jacques AMSE-LEM - Allianz and the speakers of the session
13:00 >	Panel discussion	Panel discussion	Panel discussion

Attracting Tomorrow

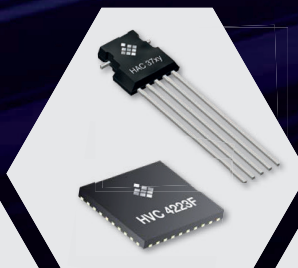


TDK Technology Driving new mobility.

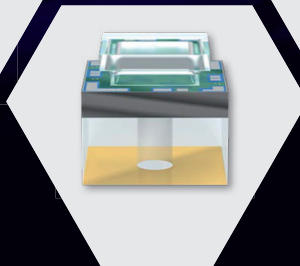
TMR angle and motion sensors for high-precision demands



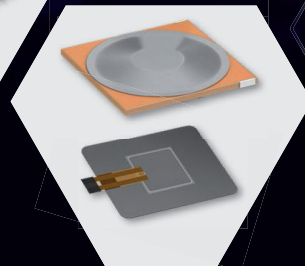
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PROGRAMME 6 DECEMBER 2018

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13:10 > LUNCH IN THE EXHIBITION

ELECTRONICS COMPONENTS AND SYSTEMS
 Chairman: Pascal Ribot, STMicroelectronics

AUTONOMOUS DRIVING CHALLENGE: ENVIRONMENT PERCEPTION
 Chairman: Antoine Lafay, Valeo

MOBILITY DISRUPTION: SECURITY & CAR ARCHITECTURES
 Chairman: Pierre Lebrun, Valeo

14:30 > Control Architecture for an Autonomous Shuttle
 Hadj Hama TADJINE, IAV

Are LIDARs ready for perception in future intelligent transportation?
 Diego PUSCHINI, CEA
 Cem KARAGOUZ & Oussama EL HAMZAOU, Transdev

Uptane - Open specification for securing OTA software updates for automotive electronics
 Georg MÜLLER, Airbiquity

14:50 > A Graphical Modeling Framework to Facilitate Scheduling in Time-Sensitive Networks
 Morteza HASHEMI FARZANEH, TU Munich

Scalable sensor fusion for safe decision making from collision avoidance up to level5
 Andre ROGER & Alexandre ENGELSTEIN, Infineon

Cybersecurity for Connected Vehicle with AGL (Automotive Grade Linux)
 Fulup LE FOLL, IOT.BZH

15:10 > A modular and flexible approach for autonomous driving
 Kai WANG, Visteon

DENSE: environment perception in bad weather - first results
 Werner RITTER, Daimler

Over the air – how simple is it really?
 Jens KÜBLER, Dirk GROßMANN & Olivier GERLACH, Vector

15:30 > A true key less entry system and biometric driver authentication for safe car sharing
 Eric DURAND & Thomas FARGES, Dura

Drive4U Locate: affordable precise and robust localization and mapping for Automated Driving
 Paulo RESENDE, Kishun JO & Benazouz BRADAÏ, Valeo

Intrusion Detection Systems on Future Automotive Networks
 Michael HERMANN & Jan HOLLE, Escrypt

15:50 > Panel session

Panel session

Panel session

16:00 > COFFEE BREAK IN THE EXHIBITION

16:30 > Conclusions of CESA
 Gaspar GASCON ABELLAN, EVP engineering - Groupe Renault / President of the French Automotive Technical Committee

17:30 > Farewell
 Jochen LANGHEIM, CESA's president

17:45 > End of SIA CESA 2018

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