Automated Driving, New Vehicle Concepts, and Climate-Neutral Energy Sources: 1800 Experts Discuss about Future Mobility at the 27. Aachen Colloquium

Currently, the automotive industry is more in the focus of the public discussion than hardly any other branch. The automotive branch faces severe challenges in the light of rising environmental regulations, an imminent gridlock, and simultaneously continuously rising mobility requirements. How do vehicles and automated driving exactly look like in the future? Which climate-neutral energy sources and propulsion systems will we use in the future? Consequently, this are the main questions, which 1800 experts from science and industry discuss at the 27th Aachen Colloquium.

The Aachen Colloquium Automobile and Engine Technology under direction of Professor Lutz Eckstein, for Automotive Engineering (ika), and Professor Stefan Pischinger, Institute for Combustion Engines (VKA) of RWTH Aachen University, counts as one of the leading expert congresses in the area of automobile and engine technology worldwide. With more than 100 technical presentations – accompanied by a technical exhibition with approximately 70 exhibitors – experts discuss about one of the greatest challenges worldwide: the shaping of future mobility.

The plenary speeches of high-ranking executives from the automotive industry gained special attention. Steven Armstrong, Group Vice President and President “Europe, Middle East and Africa” of Ford Motor Company, started in the opening plenary session. He reported on Ford’s vision to be the world’s most trusted mobility company. Against the backdrop of rising complexity of driving functions in vehicles, it is very important for OEMs like Ford to gain and maintain the customer’s trust: „We create trust with everything we do creating a better tomorrow.”

Wolf-Henning Scheider, Chief Executive Officer of ZF Friedrichshafen AG, followed by presenting the topic “Next Generation Mobility – ZF Solutions for Megacities”. Depending on the nature of the city individual concepts for the individual mobility needs to be developed customized: “I am sure that individual mobility also is part of the solution and not only part of the problem. We need to leave behind the optimization of single vehicles and go towards the optimization of mobility”, Scheider stated. He also emphasized the importance of plug-in hybrids for mobility in the sense of full family vehicles, as fully electric vehicles are rather used as second or third vehicles at the moment.

Finally, Elmar Frickenstein, Senior Vice President Fully Automated Driving and Driver Assistance of BMW Group, dedicated his presentation “The New Definition of Done – Autonomous Driving: The Paradigm Shift in the Automotive Industry” to the future of automated driving. Frickenstein names the automated vehicle as a significant contribution for driving safety. Thus, he identifies the handling of artificial intelligence as the biggest challenge: “If we master artificial intelligence, we master autonomous driving, said Frickenstein.

Future mobility will characterize the closing plenary session on Wednesday as well. Dr. Nikolai Ardey, Head of Powertrain Development of AUDI AG, will talk about zero emission technologies for future mobility. Dr. Joachim Damasky, Managing Director of the German Association of the Automotive Industry (VDA), will conclude the plenary session with an outlook for the startup of electric mobility and the introduction of automated driving.

In the accompanying technical exhibition, renowned OEMs and automotive suppliers show innovative developments and projects. This year, fka is presenting a revolutionary vehicle control concept called “Surf
& Curve”, demonstrating its expertise in the field of HMI (Human Machine Interface). The "Surf & Curve" concept was jointly developed with BCS Automotive Interface Solutions. It not only creates completely new possibilities for the interaction between driver and vehicle during manual driving, but also offers concrete answers to the challenge of automated driving. The vehicle model (called mock-up), which can be experienced live at the stand, has no conventional steering wheel. It uses drivesticks with an innovative touch mouse hover concept instead. It also offers a Periscope as a mirror replacement system, an innovative climate actuator with infrared radiator, an active Turning Seat as a connecting element between manual and automated driving, comfort automation and physiological monitoring, an entertainment system that can be operated by touch and the Guidance Display as a further development of a conventional instrument cluster.

At this year’s 27th Aachen Colloquium Automobile and Engine Technology engineering services provider FEV presents solutions for the mobility of tomorrow. Appearing as an example of FEV’s expertise in global vehicle development, one of the vehicles in the spotlight was SVEN. SVEN is designed to meet the needs of urban car sharing by being powered only by electricity, its compact dimensions and its intuitive operability. Moreover, FEV shows its development competencies in the area of autonomous driving. Furthermore, FEV displayed a very efficient downsized 1-liter, 3-cylinder Otto-DI engine that meets today’s strict emissions requirements in the target markets in China and Europe. Also, e-drives for different applications were shown, such as a fully load-shift two-speed drive unit that ensures a particularly efficient operation which is reflected in a greater range, especially at higher vehicle speeds. Besides that, FEV exemplary presented a purely electric 48 V axle, which creates new application possibilities for the 48 V technology currently used mainly in cars. The axle was conceptualized for use in light-duty municipal utility vehicles – for example, road sweepers or small dump trucks – in order to reduce the city’s emissions to zero.

In the future, the various topics of automobile and engine technology will continue to be of high significance for research and industry. Thus, the 28th Aachen Colloquium is already determined: From October 7th to 9th, 2019, the Institute for Automotive Engineering (ika) and the Institute for Combustion Engines (VKA) of RWTH Aachen University will again invite to Eurogress Aachen for a lively debate between automobile enthusiastic experts from industry and research.

Further information can be obtained at www.aachen-colloquium.com and from the following contact:

Ms. Sandra Jaksch, M.A.,
Press and Organization Aachen Colloquium Automobile and Engine Technology
Phone: +49 241 80 48021
Email: press@aachen-colloquium.com