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CONGRESS AND EXPO!

AUTOMOTIVE-ENGINEERING-EXPO.COM



DEVELOP
DIGITALLY



PRODUCE
FLEXIBLY



TOWARDS NEW
LIGHTWEIGHT
CAR BODIES



AUTOMOTIVE ENGINEERING EXPO 2019

CAR BODY
PROCESS CHAIN

FROM CONCEPT TO FINAL ASSEMBLY

Nürnberg, Germany
4-5.6.2019

NÜRNBERG MESSE

Powered by

 AUTOMOTIVE CIRCLE



VINCENTZ

INNOVATION PARK

Would you like to know the current status of modern car body engineering? In the Innovation Park, you can inspect current car bodies and components in detail even before market launch. Look forward to innovative car body concepts and components from all over Europe - and insightful insights that make benchmarking easy.



INNOVATION STARS

The AEE Innovation Stars are your innovation guide. They lead you directly to the most exciting multidisciplinary concepts around the focus topic "Develop digitally. Produce flexible. Towards new lightweight car bodies.. You decide who goes home with the AEE Innovation Award 2019 as the shining winner. After all, innovations are developed for practical use.

MASTERCLASSES

Digitization is revolutionizing your industry. The AEE shows you with the digital pioneers and masterminds how you can shape this revolution. Virtual learning rooms bring you right to the heart of the focus topic of AEE 2019 "Develop digitally. Produce flexible. Towards new lightweight car bodies.". Experience for yourself what potential digital product development and production processes have in store for you.



PRODUCT BRIEFINGS

Current products and services in 15 minutes: The product briefings concentrate on the essentials. So that you then have enough time for intensive technical discussions.

DEEP DIVES

The AEE makes it easy for newcomers and career changers. Half-day tutorials by industry experts give you a solid foundation - so that you can get started quickly in trades such as body materials, joining processes, forming techniques and painting processes. Rounded off by theme-specific exhibition tours.



CONGRESS



OVER 200 COLLEAGUES
from all over the world



MORE THAN 82
INTERNATIONAL
EXPERT SPEAKERS



Topic-specific
GUIDED TOURS
for Congress participants



8 MAIN TOPICS
along the "painted body" process chain



13 OEM REPORTS
provide insights into current key topics



69 TECHNICAL
PROGRESS REPORTS

TECHNOLOGIES AND PROCESSES TODAY

The AUTOMOTIVE ENGINEERING EXPO Congress gives you exactly the knowledge you need to achieve your professional goals. With 69 progress reports on two days, more than 82 international experts and more than 200 colleagues from all over the world.

YOUR PROGRAMME

What distinguishes the AEE: It is the only interactive forum for the entire "painted body" process chain.

What you get out of it: Everything you need to meet the demands of the industry - and achieve your professional goals.

The latest products, application examples, well-founded training courses and targeted networking with colleagues and suppliers.

THE FOCUS TOPICS OF AEE 2019



D = DEVELOP
DIGITALLY.



F = PRODUCE
FLEXIBLY.



L = TOWARDS NEW
LIGHTWEIGHT
CAR BODIES.

You can find out more about the focus topic in the congress. Individual presentations are marked accordingly.

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Audi
Vorsprung durch Technik



FCA

FIAT CHRYSLER AUTOMOBILES



JAGUAR









GROUPE
RENAULT



CONGRESS PROGRAMME

TUESDAY, 4 JUNE 2019

	09.00 h	Welcome and introduction to the congress by the Automotive Circle
	09.15 h	Plenary session <i>Progress reports on key topics of industrial automotive engineering</i>
	10.30 h	Coffee break
	11.00 h	Parallel sessions
	12.30 h	Guided Tours <i>Themed guided tours through the exhibition with stops at exhibitors presenting at the congress</i>
	13.30 h	Lunch break and visit of the exhibition
	15.00 h	Parallel sessions
	16.00 h	Coffee break
	16.15 h	Parallel sessions
	17.45 h	End of the first congress day
	18.00 h	After-Work-Party <i>Meet your business partners, customers and colleagues in a relaxed atmosphere. Take the opportunity to deepen your contacts with snacks, drinks and music.</i>

Focus topic

PARALLEL SESSION: CAR BODY PARTS / FORMING TECHNOLOGY

L	Multistep hot stamping process, a revolutionary lightweighting technology <i>Manuel Lopez Lage, Gestamp, ES</i>
L	Efficiency enhancement in sheet metal forming <i>Sascha Sikora, thyssenkrupp Steel Europe AG, DE</i>
	Imaging oillayer control on sheet metals with fluorescence and IR absorption <i>Bernhard Igel, Amepa GmbH, DE; Dr. Albrecht Brandenburg, Fraunhofer Institute for Physical Measurement Techniques (IPM), DE</i>
L	The Hot Form Quench partner network - strategic collaboration to develop aluminium hot stamping technology <i>Adrian Tautscher, Impression Technologies Ltd, UK</i>
L	Advanced forming of Al6XXX blanks <i>Christian Juricek, Magna Cosma Engineering, AT</i>
D	Assembly based springback compensation <i>Thomas Bauer, AutoForm Engineering Deutschland GmbH, DE</i>
L	Flexible, automated and customizable tailored tempering inside the press hardening furnace <i>Carsten Brörmann, Ebner Industrieofenbau GmbH, AT; Michael Blümel, Magna Cosma Engineering, AT</i>
	Investigation of galvanized coating evolution during hot stamping <i>Henrique Lacerda Eleuterio, Usiminas SA, BR</i>

Focus topic

PARALLEL SESSION: BODY SHOP / JOINING TECHNOLOGIES

F	Flexibility of assembly systems – Basis for digitalisation and networking <i>Markus Wendl, Deprag Schulz GmbH & Co., DE</i>
D	Challenges during the implementation of AI for image processing in industrial environments <i>Dr. Tobias Hanning, Automation W+R GmbH, DE</i>
F	Body Shop 4.0 - innovative solutions to increase flexibilities <i>Martin Cüppers, Ingenics AG, DE</i>
F	Sensitive robotics for body in white production. Best-practice applications <i>Dr. Ronald Naderer, FerRobotics Compliant Robot Technology GmbH, AT; Marcel Komondi, Audi AG, DE</i>
F	Increased flexibility and significant savings: A new approach to robot guidance for body production <i>Jan Čejka, Škoda auto as, CZ; André Hack, Sick AG, DE</i>
	Estimating the true cost of metrology in automotive BiW – comparing traditional quality control methods with new metrology approaches <i>Jason Ososki, Nikon Metrology NV, UK; Renaat Van Cauter, Nikon Metrology NV, BE</i>
	Quality improvement in car body manufacturing by optical 3D metrology <i>Dr. Carsten Reich, GOM GmbH; Marcus Hofmann, Audi AG, DE</i>

PLENARY SESSION 9.15 H

PROJECT SVEN – VEHICLE DEVELOPMENT IN THE CONTEXT OF „SHARED MOBILITY“

- Trends und requirements for urban mobility
- The project SVEN – Full vehicle development by FEV Europe
- Development of a car sharing vehicle – technical features and their execution in the SVEN-Project



Christian Kürten
Manager
Lightweight Design &
Pre-Development
Imperia GmbH, DE



Markus Volm
CEO
share2drive GmbH, DE



Dr. Stefan Kerscher
Manager Non-metallic Parts, Materials and
Process Analytics Technologies,
Production Integration
BMW Group, DE



Wolfgang Holub
Senior Engineer
Fraunhofer-Entwicklungszentrum
Röntgentechnik EZRT, DE

LATEST ADVANCES IN X-RAY IMAGING FOR NON-DESTRUCTIVE TESTING OF LARGE AND COMPLEX CAR COMPONENTS

NON-DESTRUCTIVE INSPECTION USING ROBOTIC COMPUTERTOMOGRAPHY ON A TOTAL VEHICLE

- Technology and application of computer tomography in car body and vehicle analysis
- Combining X-ray analysis with industrial robotization
- Experiences in BMW pilot plant

Focus topic

PARALLEL SESSION: CAR BODY MATERIALS

L

The development and application of 3rd Gen AHSS between SGM and Baosteel
Jiajie Chen, Pan Asia Technical Automotive Center, CN; Dr. Yong Zhong, Baoshan Iron & Steel Co., Ltd, CN

L

Integrated production flow for a modular and flexible rear rail
Roberto Genovese, Alfa Romeo/FCA Italy S.p.A.; Mario Padovani, Baosteel Tailored Blanks S.r.l.; Lorenzo Castori, Tiberina Group; IT

L

ALLIANCE-project: Sustainable and cost efficient lightweight design by the use of innovative material and manufacturing technologies
Dinesh Thirunavikkarasu, Institute for Automotive Engineering (ika), RWTH Aachen University, DE

L, F

Ablation 2.0 - a new process for the laser welding of AlSi-coated press hardened steels
Ivan Viaux, ArcelorMittal Global R&D, FR

Influence of different zinc coatings on the laser beam brazing process
Florian Albert, Scansonic MI GmbH, DE

L

Aluminium drives innovation for the future of mobility
Michael Hahne, Novelis AG, CH

L

Next generation high formability alloys and the need for predicting forming behavior in order to make optimal design choices
Bart Sprengers, Aleris Aluminium bvba, BE

L

HP-DC aluminum alloys for application in electric mobility
Dr. Stuart Wiesner, Rheinfelden Alloys GmbH & Co. KG, DE

Focus topic

PARALLEL SESSION: CAR BODY PAINTING AND SURFACE TECHNOLOGIES

D

Renault's experience of using digital simulation of eCoating
Keith Perrin, MSC Software Corporation, UK; N.N., Groupe Renault, FR

An innovative zinc phosphatation is finding its way
Dr. Ulrich Hönig, Chemische Werke Kluthe GmbH, DE

New dry paint arrest systems for the Automotive Paint Shops
Michael Steuer, Freudenberg Filtration Technologies SE & Co. KG, DE

L

Thermosetting materials for Additive Manufacturing
Thomas Wagner, Tiger Coatings GmbH & Co. KG, AT

F





Automotive coatings for digital application
Dr. Michael Wolfe, Axalta Coating Systems, LLC, US

Cavity protection without tempering
Tobias Röder, Fuchs Schmierstoffe GmbH, DE

New Applications & Technologies in Cavity Protection: Where Do You Start?
Thomas Kollmar, IPR Intelligente Peripherien für Roboter GmbH, DE

CONGRESS PROGRAMME

WEDNESDAY, 5 JUNE 2019

- 09.00 h Welcome and introduction to the congress by the Automotive Circle
- 09.15 h Plenary session
Progress reports on key topics of industrial automotive engineering
-  10.30 h Coffee break
- 11.00 h Parallel sessions
-  12.30 h Guided Tours
Themed guided tours through the exhibition with stops at exhibitors presenting at the congress
-  13.30 h Lunch break and visit of the exhibition
- 15.00 h Parallel sessions
-  16.30 h End of the second congress day
- 17.00 h End of exhibition

Focus topic

PARALLEL SESSION: CAR BODY PARTS / FORMING TECHNOLOGY

- D** Optimal material utilization of steel and aluminium body parts – sustainable and cost-effective
Ralf Pfitzenmaier, EDAG Production Solutions GmbH & Co. KG, DE
- L** New unified A pillar– B pillar structure with 3rd generation AHS
Semih Karabulut, Tofaş Türk Otomobil Fabrikası A.Ş., TR
- F** Maximising lightweighting in steel automotive bodies and frames with the Steel Tube Air Forming process
Ryuichi Funada, Sumitomo Heavy Industries, Ltd., JP
- D** Industry 4.0: Advanced Maintenance, process control and documentation systems for press hardening furnaces
Christoph Schneider, Aichelin Ges.m.b.H., AT
- Large scale printer for additive manufacturing of big metal parts
Dr. Christian Schmid, HLT Swiss AG, CH
- L** Characterization of the surface topography of Class-A carbon fibre components along the entire process chain
Dominik Metzger, BMW Group, DE
- L** Manufacturing of hybrid metal/thermoplastic composite structural car parts using novel technologies
Dr. Rey Rodriguez Pilar, AIMEN Technology Centre, ES
- L** Automated, short cycle production of polymer composite applications with special regards to the complexity and recyclability of composite elements
Orsolya Semperger, evopro systems engineering Kft., HU

Focus topic

PARALLEL SESSION: BODY SHOP / JOINING TECHNOLOGIES

- Current car body laser joining trends
Dr. Axel Luft, Laserline GmbH, DE
- Latest generation laser welding combines advantages of dynamic and tactile systems
Robert Ranft, thyssenkrupp System Engineering GmbH, DE
- Blower-crossjet for scanner optics and air-management in remote laser welding cells
Reinhard Indraczek, Jan Delskamp, Bergmann & Steffen GmbH, DE
- L** Efficient laser based joining processes of Aluminum 6xxx and hybrid materials
Andreas Müllegger, TRUMPF Laser- und Systemtechnik GmbH, DE
- L** Efficient Joining of FRPC in car body construction by means of induction
Stephan Becker, Institute for Composite Materials (IVW) GmbH, DE
- D** Mechanical and adhesive joining hybridization and simulation
Andreas Kiefer, Atlas Copco IAS, DE; Per-Johann Wahlborg, RISE IVF AB, SE
- Friction stir weld development and dynamic crash testing
Dr. Sachin Patil, Karma Auto LLC, US
- Mechanical and adhesive joining on narrow flanges
Dr. Paul Briskham, Atlas Copco IAS, UK

PLENARY SESSION 9.15 H



THE E-MOBILITY CHALLENGE FOR THE DIGITAL DESIGN PROCESS

- Requirements and Opportunities von CAE through E-Mobility
- Simulation-driven Design for E-Mobility
- Project Examples

Dr. Lars Fredriksson
Business VP – Simulation
Driven Innovation
Altair Engineering GmbH, DE

VALUE GENERATION BY SMART MANUFACTURING

- Smart automation
- Inhouse skill set development
- How Ford Otosan creates value



Müjdat Tiryaki
Director
Golcuk Plant Manager,
Ford Otosan, TR

Focus topic

PARALLEL SESSION: PRODUCTION AND QUALITY ASSURANCE CONCEPTS

The BIW assembly line of the new Alpine
N. N., **Groupe Renault**, FR

F Heavy load robot collaboration - industrial robots used as flexible manipulators in assembly processes
Alexander Barth, Keba AG, AT

F Flexible cell manufacturing: the revolution in automobile production
Tobias Herwig, IPO.Plan GmbH, DE

F New leak and intrusion testing methods for aluminium battery enclosures for hybrid and electric vehicles
Kai Schwarz, Constellium N.V., DE

Intelligent testing and commissioning technologies for the end-of-line area in automotive production
Marcel Otto, Lennard Margies, ZeMA - Zentrum für Mechatronik und Automatisierungstechnik gGmbH, DE

D VR/AR collaboration - sustainable, efficient, couch-affine. Networked work in automotive engineering projects
Dr. Frank Breitenbach, EDAG Production Solutions GmbH & Co. KG, DE

F Always one step ahead – Flexible, modular Assembly Technologies for smart integration of Electric Vehicles and Autonomous Driving
Andreas Hohmann, Dürr Systems AG, DE

F Agile body construction for e-mobility
Dr. Georg Bergweiler, RWTH Aachen University, Production Engineering of E-Mobility Components, DE

Focus topic

PARALLEL SESSION: CAR BODY PAINTING AND SURFACE TECHNOLOGIES

D, F Inline quality monitoring in the paint shop with 24/7 spray monitoring
Dr. Maiko Hecker, AOM-Systems GmbH, DE

In-line metrology of surface roughness and texture using coherent light scatter technology
Prof. Dr. Lars Bääth, QISAB, SE; Dr. Fabio Pini, Università degli studi di Modena e Reggio Emilia, Dept. of Engineering Enzo Ferrari / Ideativa SRL, IT

Applications of scratch testing in the paint shop
Paul Pavlov, Anton Paar Germany GmbH, DE

D Virtuelle Lackierung: Von manuellen Trainingsstationen mit VR zur Simulation der Roboterzellen
Christoph Huber, EDAG Production Solutions GmbH & Co. KG, DE

D Simulating coating thickness without calibration
Dr. Martin Schiffko, ESS Engineering Software Steyr GmbH, AT

D Simulation-based development of cavity wax nozzles
Dr. Stefan Hildenbrand, Pfinder KG, DE

D Controlling liquid behavior: spray in pre-treatment as an example
Prof. Dr. Alireza Eslamian, ESS Engineering Software Steyr GmbH, AT

Best Value

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Product Briefings	×	×
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Congress	×	

SPECIAL TICKET: DEEP DIVE (limited amount)

ALL INCLUSIVE TICKET

Automobile manufactures	1 day	EUR 545
Automobile manufactures	2 days	EUR 995
Automotive suppliers	1 day	EUR 645
Automotive suppliers	2 days	EUR 1.195
Exhibitors	1 day	EUR 545
Exhibitors	2 days	EUR 995

SPECIAL TICKET: DEEP DIVE

EUR 450



TICKETSHOP



AUTOMOTIVE-ENGINEERING-EXPO.COM

ARRIVAL AND STAY

All information about arrival and stay can be found on our website.

DATE

4 – 5.6.2019

LOCATION

Messezentrum Nürnberg

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