8TH INTERNATIONAL CONFERENCE

AUTOMOTIVE WIRE HARNESS
and Electrical Distribution System

17 and 18 March 2020
Forum am Schlosspark
Ludwigsburg, Germany

Georg Sterler
Conference Chair and Chairman of the Advisory Committee

ON THE WAY TO THE AUTOMATED WIRE HARNESS

» architectural concepts
» automation
» compatible components for production
» manageable complexity
» intelligent signal transmission
» robust power supply

WITH PRESENTATIONS BY

APTIV, ARENA2036, AUDI, BMW,
CONTI FASTENERS, COROPLAST,
DAIMLER, DRÄXLMAIER, ERNST & YOUNG,
HUBER+SUHNER, INTEDIS, KROMBERG & SCHUBERT, LEONI, MD ELEKTRONIK,
PORSCHE, ROSENBERGER, SEI ANTECH,
STMICROELECTRONICS, TE CONNECTIVITY,
TRACKWISE, VOLKSWAGEN, YAZAKI, ZVEI

Information and registration: www.wireharness.eu

SPONSORS
THE BIG INDUSTRY MEETING: AUTOMOTIVE WIRE HARNESS AND ELECTRICAL DISTRIBUTION SYSTEM 2020

Be part of the community! Collect first hand information, gain new impulses and make top-class contacts!

In the year 2020, the 8th International Conference Automotive Wire Harness and Electrical Distribution System – powered by Süddeutscher Verlag Veranstaltungen – will present the latest trends and challenges of the industry: Resource conservation, intelligent signal transmission, new architectural concepts, robust power supply and manageable complexity. Thanks to the active support of the advisory committee we have again organized an attractive and well-conceived program with many international speakers from the leading automotive manufacturers.

Besides top-class speakers and competently created presentations, the participants appreciate the excellent possibilities for an annual, intensive exchange of ideas with the most important automotive specialists in a relaxed atmosphere.

The Automotive Wire Harness and Electrical Distribution System Conference evolves more and more to the international automotive industry platform No. 1. That’s why we offer professional English simultaneous interpretation to all participants on both days.

During the coffee breaks you will have the opportunity to visit the booths of the exhibitors in front of the conference hall and talk to a great number of experts.

To bring the first day of the conference to a crowning finale, we will invite you to the legendary evening event in the beautiful and nearby Reithaus. Take the opportunity to make new contacts and strengthen existing business relationships.

We look forward to welcoming you at the event and hope you gain lots of new inspirations and enjoy some fruitful discussions!

Georg Sterler
Former Head of Wire Harness System Development AUDI

Andras Hetenyi
Conference Manager Süddeutscher Verlag Veranstaltungen
ADVISORY COMMITTEE

CHAIRMAN OF THE ADVISORY COMMITTEE

Georg Sterler  
Former Head of Wire Harness System Development  
AUDI

Frank Dambacher  
Head of Wiring System  
PORSCHEN

Peter Doubek  
Head of Physical Wiring System  
BMW

Udo Hornfeck  
CTO and Member of the Executive Board  
Wiring Systems Division  
LEONI

Dr. Rainer König  
Senior Manager Wire Harness and DMU  
DAIMLER

Dr. Wolfgang Langhoff  
CDO  
KROMBERG & SCHUBERT

Ralf Milke  
Head of Electrical & Mechatronic Systems  
VOLKSWAGEN

Reinhard Prechler  
Head of Development of Wire Harness Systems, EMC and Antennas  
AUDI

Christian Schäfer  
Director Electrical and Electronic Systems  
APTV

Georg Scheidhammer  
Managing Director Engineering Technology  
DRÄXLMAIER

Hajo Wetzel  
Director CoE Embedded Software Technology & Security  
TE CONNECTIVITY
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Company</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.00 a.m.</td>
<td>REGISTRATION AND WELCOME COFFEE</td>
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<tr>
<td>8.45 a.m.</td>
<td>OPENING OF THE CONFERENCE</td>
<td>Georg Sterler</td>
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<td>Conference Chair and Chairman of the Advisory Committee</td>
</tr>
<tr>
<td>9.00 a.m.</td>
<td>Highly suspenseful: The automotive wire harness of the Porsche Taycan</td>
<td>Frank Dambacher</td>
<td>PORSCHE</td>
<td>Head of Wiring System</td>
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<td>Topics: Challenges in the vehicle development</td>
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<tr>
<td>9.30 a.m.</td>
<td>The wiring harness in the area of conflict between sustainability and costs</td>
<td>Dr. Klaus Specht</td>
<td>DRÄXLMAIER</td>
<td>Head of Benchmark</td>
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<td>Topics: Exemplary CO2 balance of a wiring harness</td>
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<tr>
<td>10.00 a.m.</td>
<td>New architectural approaches and their impact on automotive wiring harnesses</td>
<td>Oliver Bettgens</td>
<td>VOLKSWAGEN</td>
<td>Projectleader BNA</td>
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<td>Topics: Evolution of the wiring harness system over the last years</td>
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<tr>
<td>10.30 a.m.</td>
<td>COFFEE BREAK, NETWORKING AND CHANCE TO VISIT THE EXHIBITION</td>
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<tr>
<td>11.15 a.m.</td>
<td>Validation and long-term control of complexity doing customer-specific harness releases</td>
<td>Peter Pfeil</td>
<td>BMW</td>
<td>Head of Electrologic, Configuration wiring harness</td>
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<td>Topics: Current challenges of development release process</td>
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<td>11.45 a.m.</td>
<td>Multi-voltage vehicle electrical architecture impact on wire harness design and EDS components</td>
<td>Eric Varton</td>
<td>YAZAKI NORTH AMERICA</td>
<td>Chief Engineer, Advanced Development Engineering</td>
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<td>Topics: Drivers of multi-voltage vehicle EDS architectures</td>
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<tr>
<td>12.15 p.m.</td>
<td>Complexity in power distribution imposed by continuously rising requirements – derivation, assessment and solutions</td>
<td>Dr. Peter Grabs and Lars Nilsson</td>
<td>INTEDES and LEONI</td>
<td>CTO of INTEDES</td>
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<td></td>
<td>Topics: Evaluation of power distribution concepts with respect to availability, functional safety and functional partitioning</td>
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</tbody>
</table>
## AGENDA  
**TUESDAY | 17 MARCH 2020**

<table>
<thead>
<tr>
<th>12.45 p.m.</th>
<th><strong>LUNCH BREAK, NETWORKING AND CHANCE TO VISIT THE EXHIBITION</strong></th>
</tr>
</thead>
</table>

| 2.30 p.m. | **Innovation initiative wire harness: Joined efforts within ARENA2036 towards automation**  
**ARENA2036**  
**Georg Schnauffer**  
Research Coordinator Industrie 4.0  
**Wolf Rumpelt**  
Head of Project Office Innovation Initiative Wire Harness  
**Topics:** Strategic Challenge: Automation of wire harness engineering, production and assembly |  
| 3.00 p.m. | **The path to fully automatic cable assembling for the onboard high power network**  
**ROSENBERGER HOCHFREQUENZTECHNIK**  
**Martin Zebhauser**  
Vice President Business Area Automotive  
**Tobias Huber**  
Head of international process development – assembly  
**Topics:** Lessons learned from data connector assembly |  
| 3.30 p.m. | **The benefits of flexible printed circuits as a replacement for wire harness**  
**TRACKWISE DESIGNS**  
**Philip Johnston**  
CEO  
**Topics:** Weight and space saving |  

<table>
<thead>
<tr>
<th>4.00 p.m.</th>
<th><strong>COFFEE BREAK, NETWORKING AND CHANCE TO VISIT THE EXHIBITION</strong></th>
</tr>
</thead>
</table>

| 4.30 p.m. | **Simulation based signal integrity analysis for CAN FD domains by the system supplier**  
**KROMBERG & SCHUBERT**  
**Benjamin Möller**  
Specialist – Advanced Engineering Electrical Systems  
**Topics:** Tool implementation and integration into the product development flow |  
| 5.00 p.m. | **Electronic fuses compliant with the evolution of E/E architecture of new car generations**  
**STMICROELECTRONICS**  
**Romeo Letor**  
Innovation Scout  
**Topics:** E-Fuse General Device architecture and E-Fuse versus melting fuse |  
| 5.30 p.m. | **The automotive industry in the prisoner’s dilemma – a game theoretical approach**  
**ERNST & YOUNG**  
**Peter Fuß**  
Senior Advisory Partner Automotive  
**Topics:** The fireworks come to an end |  

| 6.15 p.m. | **START OF THE EVENING EVENT AT THE NEARBY REITHAUS LUDWIGSBURG**  
**MORE INFORMATION ON PAGE 10** |
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
<th>Topics</th>
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</thead>
<tbody>
<tr>
<td>8.15 a.m.</td>
<td>WELCOME AND OPENING</td>
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<td>8.30 a.m.</td>
<td>The modular high-voltage kit MEB</td>
<td>Andreas Boy (VOLKSWAGEN)</td>
<td>The new ID. family</td>
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<td>9.00 a.m.</td>
<td>Unified thermal simulation of HV wiring harnesses including component interface models</td>
<td>Frank Hübner (DAIMLER and ZVEI) Sebastian Glatz (ZVEI)</td>
<td>Introduction of the guideline “Thermal Simulation Models” by the ZVEI</td>
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<td>9.30 a.m.</td>
<td>Sumitomo’s E/E architecture concept for future vehicle</td>
<td>Dr. Yasuhiro Hattori (SEI ANTECH-EUROPE) Oliver Weiss (SEI ANTECH-EUROPE)</td>
<td>E/E architecture concept</td>
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<td>10.00 a.m.</td>
<td>COFFEE BREAK, NETWORKING AND CHANCE TO VISIT THE EXHIBITION</td>
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<td>10.45 a.m.</td>
<td>3D-Master process: Tool-driven early quality assurance for data from topological and schematic development</td>
<td>Martin Mewe (BMW) Dr. Daniel Wienholtz (BMW)</td>
<td>3D-Master is key enabler for seamless topological development</td>
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<td>11.15 a.m.</td>
<td>EDS automation and need for major EE/A change</td>
<td>Do Sohn (APTIV)</td>
<td>EDS automation drivers</td>
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<td>Time</td>
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<td>LUNCH BREAK, NETWORKING AND CHANCE TO VISIT THE EXHIBITION</td>
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<td>1.00 p.m.</td>
<td>The evolution of high performance contact elements in the new AUDI RS6</td>
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<td><strong>AUDI</strong></td>
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<td><strong>Stefan Zimmermann</strong></td>
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<td>Team coordinator controlling of development process wiring harness</td>
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<td><strong>Topics:</strong> Revolutionary plating</td>
<td>High performance surface</td>
<td>Environmentally friendly</td>
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<td>1.30 p.m.</td>
<td>Stay Connected – Safe design with grounding fasteners</td>
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<td><strong>CONTI FASTENERS</strong></td>
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<td><strong>Sebastian Schlegel</strong></td>
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<td>Representative Conti Fasteners</td>
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<td><strong>Topics:</strong> Mobility in motion – Tightening technologies future challenges</td>
<td>Required qualifications in tightening technology – New VDI/VDE 2637</td>
<td>Keep protected with designing grounded joints</td>
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<td>1.45 p.m.</td>
<td>Optical data transmission, a complement to copper</td>
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<td><strong>MD ELEKTRONIK</strong></td>
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<td><strong>Helmut Pritz</strong></td>
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<td>Manager Technical Productmanagement</td>
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<td><strong>Topics:</strong> Challenges to existing systems</td>
<td>Development approaches copper-based and optical</td>
<td>Future prospects</td>
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<td>2.00 p.m.</td>
<td>Clearing the path to high data rates – taking advantage of radio modulation schemes</td>
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<td><strong>HUBER+SUHNER</strong></td>
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<td><strong>Alexander Post</strong></td>
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<td>Market Unit Manager Automotive</td>
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<td><strong>Topics:</strong> Ready for up to 30Gbit/s by using a conventional coax link</td>
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<td>2.15 p.m.</td>
<td>New generation of sensor and actuator cable</td>
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<td><strong>COROPLAST</strong></td>
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<td><strong>Helmut Wichmann</strong></td>
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<td>Senior Technical Manager – Wires &amp; Cables</td>
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<td><strong>Topics:</strong> Increase in performance with innovative design optimizations</td>
<td>Resource savings by implementing weight saving potentials</td>
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<td>2.30 p.m.</td>
<td>Possible applications of IDC in automobiles: Pros &amp; cons</td>
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<td><strong>Dr. Helge Schmidt</strong></td>
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<td>Fellow</td>
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<td><strong>Topics:</strong> Functional concept, history and design (single or multiple stranded wires and magnet wires)</td>
<td>Processing options and comparison of IDC technology with other types of wire connectivity</td>
<td>IDC for inbox wiring versus connectivity solutions within the typical wiring harness</td>
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<td>3.00 p.m.</td>
<td>CLOSING WORDS: GEORG STERLER</td>
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<td>END OF THE 8TH INTERNATIONAL CONFERENCE AUTOMOTIVE WIRE HARNESS AND ELECTRICAL DISTRIBUTION SYSTEM 2020</td>
<td></td>
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</tr>
</tbody>
</table>

**AGENDA**  
**WEDNESDAY | 18 MARCH 2020**
The following companies are Sponsors at the 8th International Conference Automotive Wire Harness:

**A P T I V**

Aptiv is a global technology company that develops safer, greener and more connected solutions enabling the future of mobility. It delivers the software capabilities, advanced computing platforms and networking architecture that makes mobility work. Aptiv employs over 160,000 people worldwide and operates 15 major technical centers and 126 manufacturing sites in 44 countries. In Germany, Aptiv aims to transform mobility by delivering enabling technologies for autonomous driving. With almost 900 employees from 49 nations around the world, the Wuppertal technology center is the headquarter for Germany. For further information visit us at www.aptiv.com

**DRÄXLMAIER**

The DRÄXLMAIER Group supplies premium automobile manufacturers worldwide with wiring harness systems, electrical and electronic components, interiors, and battery systems. DRÄXLMAIER develops pioneering wiring harness technology as well as electrical and electronic components, all directly inhouse and is working on the future of emission-free mobility with its solutions for low-voltage and high-voltage battery systems. The DRÄXLMAIER Group also supplies premium automobile manufacturers with ambient lighting, center consoles, door panels and instrument panels, as well as complete door and cockpit modules. Customers of the Top 100 Automotive Supplier include Audi, BMW, Jaguar, Land Rover, Maserati, Mercedes-Benz, MINI, Porsche and VW, as well as highly innovative Californian automotive manufacturers. For more information visit www.draexlmaier.com

**EDAG BFFT**

Engineering expert EDAG develops complete vehicles, production plants and tools worldwide. With our three segments – Vehicle Engineering, Production Solutions and Electrics/Electronics – we offer our international customers single-source vehicle and production development up to mobility solutions. The E/E portfolio of our brand EDAG BFFT Electronics includes the areas E-Drive & Battery, Comfort & Passive Safety, Autonomous Drive & Active Safety, Connectivity & User Experience, Mobility & Cloud Services up to the development of complete vehicle E/E. For further information visit us at www.edag.com

**LEONI**

LEONI is a global provider of products, solutions and services for energy and data management in the automotive sector and other industries. The market-listed group of companies has more than 95,000 employees in 32 countries and generated consolidated sales of EUR 5.1 billion in 2018. LEONI’s largest customer group comprises the global car, commercial vehicle and component supply industry, for which the Company makes both standard and special cables as well as custom-developed wiring systems and related components. Especially in the automotive industry, LEONI offers substantial added value to motor vehicle manufacturers in both technological and commercial terms by being an innovation partner based on profound understanding of the overall system and by being involved in the early stages of development. An integrated network for research & development, production as well as distribution and service gives customers the assurance of tailor-made support at more than 90 locations around the globe. For further information visit us at www.leoni.com

**SIEMENS**

Siemens Digital Industries Software is a world leader in software solutions for electrical / electronic (E/E) systems development. We provide software tools, consulting services and support for electrical systems, wiring harnesses, in-vehicle networks and AUTOSAR embedded software, covering initial platform architecture definition through to in-service utilization. The Capital software suite supports the design, analysis, manufacture, and service of E/E systems for Automotive, Aerospace and complex Machinery. With best-in-class integrations for all major MCAD and PLM tools Capital supports true cross-functional product development as part of the Model Based Enterprise. For further information visit us at www.siemens.com/ee-systems

**YAZAKI**

Yazaki is a full-service systems supplier of wire harness, electrical, data products and solutions enabling vehicle electrification, connectivity, and autonomy integration. With approximately 250,000 employees in 45 countries, Yazaki is driving and optimizing vehicle electrification and power distribution architecture and developing advanced electric components for hybrid and full-electric vehicles. For more information about Yazaki, visit www.yazaki-europe.com
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**WHERE THE INDUSTRY MEETS.**

What is better than a huge advertising shake? A firm handshake! Take this opportunity! Present your company to the professional audience – your target group – without any scattering losses.

**YOUR FIRST CONTACT**

Nicolai von Gratkowski  
Manager Exhibition & Sponsoring  
P: +49 8191 125-123  
nicolai.vongratkowski@sv-veranstaltungen.de
EVENING EVENT

After the first day of the conference you are cordially invited to enjoy the evening event at the beautiful Reithaus in a relaxed atmosphere. Use this opportunity to discuss your experiences with colleagues, speakers, our advisory board and our evening-event-sponsor Siemens. Refresh and expand your personal network.

Enjoy the first event evening with relaxing music, a festive meal and a legendary cocktail bar. Please use the numerous possibilities for networking. You can look forward to an interesting entertainment program with many highlights. Let us surprise you! It will surely be an unforgettable evening for you!

We will meet on 17 March 2020, 6:15 p.m., at the nearby Reithaus Ludwigsburg!
INFORMATION FOR PARTICIPANTS

DATE OF THE EVENT
17 and 18 March 2020

EVENT LOCATION
Forum am Schlosspark Ludwigsburg
Stuttgarter Strasse 33
71638 Ludwigsburg, Germany
P: +49 7141 910 3910
www.forum.ludwigsburg.de

ROOM RESERVATION
Note: Hotel bookings are subject to availability.

NH Hotel
Pflugfelder Strasse 36 I 71636 Ludwigsburg
P: +49 7141 1509-0 I nhludwigsburg@nh-hotels.com
www.nh-hotels.de/hotel/nh-ludwigsburg
Preferential rate: single room €132 (Quote “SV Veranstaltungen” when booking by 17 February 2020 to secure the room at this preferential rate). The hotel is 5 minutes by car from the event venue “Forum am Schlosspark”.

Favorit Hotel BEST WESTERN Ludwigsburg
Gartenstrasse 18 I 71638 Ludwigsburg
P: +49 7141 97677-0 I info@hotel-favorit.de
www.hotel-favorit.bestwestern.de
Preferential rate: single room €105 (Quote “SV Veranstaltungen” when booking by 10 February 2020 to secure the room at this preferential rate). The hotel is 5 minutes by car from the event venue “Forum am Schlosspark”.

Hotel Goldener Pflug
Dorfstrasse 2-6 I 71636 Ludwigsburg
P: +49 7141 4411-0 I kontakt@goldenerpflug.info
www.goldenerpflug.info
Preferential rate: single room €115 (Quote “SV Veranstaltungen” when booking by 31 January 2020 to secure the room at this preferential rate). The hotel is 10 minutes by car from the event venue “Forum am Schlosspark”.

ATTENDANCE FEE
The attendance fee for the conference (17 and 18 March 2020) is €1,895 plus VAT

This fee includes the following services:
» Participation in the conference
» Conference documentation and app-access
» Lunch on both days of the conference
» Refreshments
» Opportunity to visit the accompanying trade exhibition
» Evening event (17 March 2020)

REGISTRATION
Please register online www.wireharness.eu

Once we have received your registration, you will be registered as a participant. We will then send you the confirmation of registration and an invoice that must be settled before the start of the event. In the event of cancellations received after 3 March 2020 or non-appearance, the full participation fee will be billed. However, a replacement participant can be designated. For cancellations before this date, a €150 administration fee will be charged. Cancellations and registrations must be made in writing.

The event organizer reserves the right to change the location and/or time of the whole event or individual parts of it or to alter or cancel it at short notice.
REGISTRATION IN 2 STEPS: www.wireharness.eu

1. Use this QR-Code or follow the link: www.wireharness.eu

2. Fill out the form and submit

8TH INTERNATIONAL CONFERENCE
AUTOMOTIVE WIRE HARNESS AND ELECTRICAL DISTRIBUTION SYSTEM

17 and 18 March 2020
Forum am Schlosspark, Ludwigsburg near Stuttgart, Germany

Participant fee: €1,895 plus VAT
Free participation in the evening event on 17 March 2020
Free and non-binding information about exhibition and sponsoring opportunities

ORGANIZATION & REGISTRATION
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tammi.goelz@sv-veranstaltungen.de

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www.wireharness.eu

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