4th International VDI Conference 2017

Automotive HMI & Connectivity

July 5–6, 2017, Berlin, Germany

• Different interfaces demanded by automotive OEMs
• Future of Vehicle Cockpit HMI System and Architecture
• In-Cabin Context Awareness in Automated Vehicles
• Designing comfortable Interactions in Automated Vehicles
• UX 2020 – 2025: “What’s next?”
• Innovation using Facial Biometric Tech
• User-centered Infotainment Evaluation in the Age of Consumer Electronics

+ International VDI Workshop

Meet experts from the following companies:

altia  Continental  Coventry
Ford  HealthyRoad  HUBject
IBM  iEE  Intel  LUCID  MapmyIndia
PSA Groupe  RideCell  Rightware  Tata  Tata Elxsi
UnityLab  Valeo

An event organized by VDI Wissensforum GmbH
http://www.vdi-international.com/hmi

Includes free entrance to the ConCarExpo 2017!
Who shall attend the 4th Automotive HMI & Connectivity Conference?

This technical conference provides a professional forum for all experts who are working in the fields of HMI Design and Development

- Engineers, technologists, designers and specialists from car makers
- Managers and staff from HMI, electronics and connectivity departments
- Experts who are working in the fields of HMI Design and Development
- Designers, developers, engineers and technical experts from car suppliers

Explore the connected automotive Ecosystem

The “HMI & Connectivity” is part of the ConCarExpo – The leading International Trade Fair for Connected Car & Mobility Solutions in Europe. The ConCarExpo unites four technical conferences, a huge range of international exhibitors, innovative start-up pitches and excellent networking opportunities in the connected automotive ecosystem.

Visit four parallel running conferences with one ticket

Your benefits:

4 for 1
Four high class technical international conferences with one ticket

+ 100 International exhibitors at ConCarExpo

+ 100 Speeches at the four conferences and on the exhibition floor

Over 500 Attendees at the conferences and 1500 Trade Fair Visitors

Networking Hotspots
Huge evening reception, roundtables, workshops, world cafés

+ 20% International OEM Delegates

Car Pavillion and User Experiences

16 Start up-Pitches
08:30  Registration & welcome coffee

09:30 Opening Speech ConCarExpo at the ConCar Forum Stage: Autonomous Driving, Digital Infrastructure & Mobility Solutions as Key Drivers for the Automotive Industry
Johannes Jungwirth, Chief Digital Officer, Volkswagen AG, Germany

10:10 Chairs’ welcome and opening address
Dr. rer. physiol., Dipl. Psych. Stefan Becker, Supervisor Global Core HMI, Vehicle Engineering / Interaction & Ergonomics, Ford Werke GmbH, Germany
Prof. Dr.-Ing. Gerrit Meixner, Director, UniTyLab, Hochschule Heilbronn, Germany

I. Control Displays and Cockpit Architecture

10:15 Breaking Down the Automotive E-Cockpit Design Challenge
- Multiple displays – Sharing content between screens, theme similarity, design reuse, multiple rendering pipelines
- Performance and footprint – Maximizing use of hardware capability to reduce unneeded resource usage
- Third party content – Safe vs. open environments, safety-critical vs. connected functionality
- Leveraging embedded chip resources with Altia – Native C code, Layer manager, safety
- Embedded hardware support
Stephan Häfele, Managing Director, Altia Europe GmbH, Germany

10:45 Future of Vehicle Cockpit HMI System and Architecture
- Our vision for the future cockpit systems
- System structure
- Consideration on its computing architecture
- Key factors: Performance design, software and cyber security
Masashige Mizuyama, CTO Infotainment Business, Panasonic Corporation, Japan

11:15 In-Cabin Context Awareness in Automated Vehicles
- Context as the basis of affective computing
- Challenges of understanding human behaviors
- Opportunities for HMI differentiation
- Towards personalized learning HMIs
Dr. Ignacio Alvarez, Staff Research Scientist, Intel Labs, Intel Corporation, USA

12:15 The Road to Autonomous Driving
- Application of IoT devices – Telematics/tracking
- Navi solutions for connected mobility
- Computer annotation – Image processing
- IoT trend in India
Shivalik Prasad, Executive Director, Business Department, Map My India, India

12:45 Paradigm Shift: “Connected Car to Smart Mobility” & Panasonic Silicon Valley Center Concepts
- Our vision for Smart Mobility
- System Structure – Smart Cars to Smart Mobility to Smart Cities
- Consideration on Information Architecture & Personalization
- Key factors: Benefits for the end users around Contextual Discovery with Actions/Transactions and Federated Security
Hakan Kostepen, Managing Director – Strategy & Innovation, Product, Strategy & Planning, Panasonic Automotive, USA

13:15 Lunch & visit of the accompanying trade fair ConCarExpo

II. Usability, User Experience and HMI Development Processes

15:00 Automotive UX Design in a Silicon Valley Start Up
- Rethinking the automotive UX design process in this new age
- How UX design is critical to building the brand
- The Lucid Motors working process and examples
- Reaping the benefits of being in Silicon Valley
Nathan Barbour, Lead UX Designer, co-author: James Felkins, Senior UX Designer, both: Lucid Motors, USA

15:30 Take-Over Procedures for level 3 autonomous Vehicle
- Understanding Human factor challenges in transition and HMI requirements
- HMIs in Autonomous Driving, User Experience, Testing and Results – What consumers really need and want
- Recommendations for autonomous take-overs in HMI development
Stéphane Feron, HMI Expert, Groupe PSA, France

16:00 Networking & coffee break
16:30 Blockchain Technology – An Opportunity not to be missed in Automotive
- Why Blockchain technology is relevant for automotive HMI & Connectivity
- How does Blockchain work?
- Blockchain case studies for Automotive
- How to get started with Blockchain
Dipl.-Wirt.-Inform. Hardy Gröger, Executive Architect & Client Technology Leader, IBM Deutschland GmbH, Germany, co-author: Dr. Sebastian Wedeniwski, CTO Automotive Industry, Sales & Distribution Industrial Sector, IBM, Japan

17:00 Designing comfortable Interactions in Automated Vehicles
- Passenger comfort experience as the key user requirement
- Challenges of enabling Non Driving Related Tasks (NDRT)
- Compatibility between NDRT and system trust
- Conceptual design framework for passenger comfort experience in AVs
Dr. Cyriel Diels, Senior Lecturer in Human Factors, Centre for Mobility and Transport, Coventry University, UK

17:30 Chair’s remarks

17:45 Evening Keynote on the ConCar Forum Stage: Volvo Cars Development of Autonomous Electrified Vehicles in Cooperation with Uber
Kent Melin, Senior Technical Leader, Electrical System design, Volvo, Sweden

09:15 Innovation using Facial Biometric Tech
- Innovative HMI features based on facial biometric technologies
- How we can use facial biometric tech, in today’s vehicle, level 3 vehicle and level 4 vehicle
- Facial Biometric tech, to solve problems with the focus of the driver and fatigue/drowsiness
- Results that we collected during our 300.000 km of tests
André Azevedo, B.E.E., Co-Founder, Business Development, co-authors: Filipe Monteiro, M.E.E., CTO and Filipe Oliveira, Pos-Grad Economic and Business, Co-Founder, all: Healthy Road, Portugal

09:45 Automotive branding – World Class User Experiences in connected Cars
- Smartphone level user experience through personalized UIs
- Own automotive brand identity – User interfaces, connectivity and safety
- Automotive electronics, consumer devices and the IoT under one single interface
- Updating automotive software on the fly
Ying Xiong, M.Sc., Managing Director, Marketing, Rightware, Finland

III. Connectivity and connecting external Devices – Consumer Electronics for Automotive

10:15 Highly Automated Driving – Components for Driver Vehicle Interaction
- User centered design process: Challenges and requirements
- Driver vehicle interaction: Concept overview and selected components
- Central input device: User centered design and technical concept
- User perspective: First user clinic findings
Dipl.-Psych. Bettina Leuchtenberg, Leading Technical Expert HMI, Usability & Ergonomics, co-author: Dr. Thomas Vöhringer-Kuhnt, Head of CoC HMI, both: Continental Automotive GmbH, Germany

10:45 Networking & coffee break

11:30 Common Interface Architecture for Smartphone Connectivity
- Smartphone connectivity mechanisms bring in the best of both
- Apple CarPlay, Google Android Auto, Baidu CarLife and MirrorLink demanded by automotive OEMs
- Common interface to the application layer enables smoother and faster integration of smartphone connectivity
- Define a plug-in based scalable software architecture to provide common easy-to-use interfaces
Silvy Samuel, B.E. Electronics & Communications, Senior Specialist, Transportation Business Unit, co-authors: Shehan P.R. and Vinu V.S., all: TATA Elxsi, India

Get-together with Participants of all parallel Conferences
At the end of the first conference day we kindly invite you to use the relaxed and informal atmosphere for in-depth conversations with other participants and speakers.
12:00 eRoaming: New Business Opportunities in Europe’s Digital Electric Vehicle (EV) Charging Network
- Intercharge – International interoperable EV charging with maximum transaction cost efficiency
- New added values that will make EV driver’s life easier
- Future Trends and perspectives
Dipl.-Wirts.-Ing. Thomas Daiber, MBE, CEO, Hubject GmbH, Germany

12:30 User-centered Infotainment Evaluation in the Age of Consumer Electronics
- Usability testing methods and processes
- Rapidly changing software and design requirements
- Alignment of user testing with software and hardware development processes
Dr. Rami Zarife, Senior HMI Engineer, Infotainment & Telematics, Adam Opel AG, Germany

12:00 Lunch & visit of the accompanying trade fair ConCarExpo

IV. Assistant and Autonomous Driving

14:45 Hands Off Detection – Safe Transition between Assisted and Automated Driving
- Capacitive sensing for reliable hands on/off detection
- Key information to determine when the driver controls the vehicle
- Supports LKAS as well as high automation levels
- Monitors transition between manual and automated driving modes
Alexander Treis, Business Development Manager, IEE S.A., Luxembourg

15:15 Virtual Reality Driving Simulation
- Introduction and Overview
- Increasing immersion: Combining VR and a real car
- Problems, challenges and solutions
- Integration in the KoFFI research project
Hieu Lê, M.Sc., Research Assistant, UniTyLab, Hochschule Heilbronn, Germany

V. Trends and Future Prospects – Advances and Visions

15:45 Transforming the Future of Mobility
- Analyze the changing landscape of urban mobility requirements and the requirements for any successful new mobility service
- Examine the global trends of new mobility services and changing user needs: What are some lessons for OEMs transitioning into mobility service companies
- Learn how big data and analytics can predict user demands and enable smarter mobility services
- Learn how platforms can automate the entire market entry into mobility-as-a-service, including workflow, end to end, dispatch, scheduling, balancing supply, demand, CRM and payments
Paul Drysch, Vice President, Business Development and GM of APAC Region, RideCell, USA

16:15 UX 2020 – 2025: “What’s next?”
- UX cockpit platform from AD level 2-4
- Hybrid cloud architecture for personalized and contextualized UX
- Impact of 5G on UX
Dipl.-Ing. Patrice Reilhac, Innovation Director, Comfort and Driving Assistance Business Group, Valeo, Germany

16:45 Farewell coffee in the accompanying trade fair ConCarExpo

17:00 End of conference
Automotive HMI & Connectivity is part of the ConCarExpo 2017

Sections of Trade Fair:
- Automated Driving and Driver Assistance Systems
- Electronic Components, Monitoring and Control Technology, Sensor Technology
- Software and Networked Systems, Infotainment
- Telematics and Navigation
- HMI, Operation and Display
- Diagnosis, Test, Integration, After-sales-service
- Traffic Engineering, Infrastructure, Automotive Mobility

91% of visitors rate ConCarExpo 2016 as good to excellent
78% rate the quality of visitors as excellent
93% of conferences delegates rate the conference as good to excellent
82% of exhibitors rate the marketing platform ConCarExpo as very good

If you want to meet with and reach out to the first-rate experts attending the 4 International VDI Conferences and the International trade fair ConCarExpo and to powerfully present your products, become an exhibitor at ConCarExpo! For further information please contact our ConCarExpo-Team:

Martina Slominski, Project Consultant Exhibition & Sponsoring
Phone: +49 211 6214-385
martina.slominski@concarexpo.com

Mariya Petkova, Project Consultant Exhibition & Sponsoring
Phone: +49 211 6214-667
mariya.petkova@concarexpo.com

Visit our website for more information: www.concarexpo.com
International VDI Workshop

UI Asset Creation to Implementation Readiness in one Platform

Workshop Chair:
Christopher P. Giordano, Cp.E.,
Vice President – Automotive Division, DISTI, USA

Date and venue:
July 7, 2017
Berlin, Germany

Time:
10:00–17:00

Content
Create your own UI application and visually develop the logic in a hands on workshop. Learn about functional safety as it pertains to UI content and its associated software systems.

Discussion: Reliable UI Development
• UI asset creation
• Application portability
• Implementation readiness

Workshop: Rapid UI Development and Iteration
• Hands-on practical session to create your own instrument cluster and visually build your own control logic

Note: No programming required, bring your own laptops.

Discussion: Understanding Functional Safety for UI
• ISO 26262 ASIL rated UI
• Appropriate architectures
• Related systems

Fun and interactive workshop

Terms and Conditions

Registrations: Registrations for conference attendance must be made in writing.
Confirmation of your registration and the associated invoice will be mailed to you. Please do not pay your conference attendance fee until you have received our invoice and its invoice number to be stated for transfer. German VAT directives apply. Please state your VAT-ID with your registration.

Conference venue
ESTREL Hotel
Sonnenallee 225
12057 Berlin
Email: reservierung@estrel.com
Website: www.estrel.com

Hotel room reservation: A limited number of rooms has been reserved for the benefit of the conference participants at the ESTREL Berlin. reservierung@estrel.com – Please refer to “VDI Con Car Expo”
For more hotels: www.vdi-wissensforum.de/hrs

VDI Wissensforum service package: The conference package includes the conference documents (online), beverages during breaks, lunch and the get together on July 5, 2017.

Conference attendance conditions and terms: By way of your registration you accept the conference attendance conditions and terms of VDI Wissensforum GmbH as binding. Any cancellation of your registration must be made in writing.
We will charge you only an administrative fee of € 50.00 plus German VAT if you cancel your registration earlier than 14 days ahead of the conference date.
Any cancellation that reaches us after this deadline will entail the conference attendance fee as stated in our invoice to be charged in full. The date of the post office stamp of your written cancellation will be the decisive criterion. In that case, we will gladly mail you the conference documents on request. Subject to agreement, you may name a substitute participant. Individual parts and sections of conferences and seminars cannot be booked. You will be informed without delay if an event has to be cancelled for unforeseeable reasons. In that instance, you will be entitled only to a refund of your conference attendance fee if already paid. We reserve the right to exchange speakers and/or change the program sequence in exceptional cases. In any case, the liability of VDI Wissensforum GmbH is restricted exclusively to the conference attendance fee.

Data protection: VDI Wissensforum GmbH captures and processes the address data of conference participants for their own corporate advertising purposes, enabling renowned companies and institutes to reach out to participants by way of information and offers within their own marketing activities. We have outsourced in part the technical implementation of data processing to external service providers. If you do not want to receive any information and offers in the future, you may contradict the use of your personal data by us or any third parties for advertising purposes. In that case, kindly notify us of your contradiction by using the email wissensforum@vdi.de or any other of the contact options mentioned.

Registration

Conference by VDI Wissensforum GmbH | http://www.vdi-international.com/hmi | Phone +49 211 6214-201 | Fax +49 211 6214-154

Automotive HMI & Connectivity
Please choose your price category

**Participation Fee + VAT**

- VDI Conference 05.–06.07.2017 (01KO901017) € 1,690
- Workshop 07.07.2017 (01ST160001) € 850
- Package Price (conference and workshop) € 2,280

**Personal VDI members + VAT**

- VDI Conference 05.–06.07.2017 (01KO901017) € 1,590
- Workshop 07.07.2017 (01ST160001) € 800
- Package Price (conference and workshop) € 2,130

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