Maintain a competitive advantage and enhance value through cutting edge automotive display developments

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Manager, Ambience Light, Modular System, Interior Lighting,
BMW, Germany

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President of the German Flat Panel Display Forum,
University of Pforzheim, Germany

Kai Hohmann,
Principal Technical Expert Automotive Displays, Group Leader Center of Competence Display,
Continental Automotive GmbH, Germany

Jan Faber,
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Audi, Germany

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Volvo, Sweden

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PSA Peugeot Citroen, France
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KY16 9SR
www.ceresholographics.com

Ceres Holographics are leaders in producing transparent holographic optical elements (HOEs) in advanced photopolymer materials. Our digital mastering, and replication technology, is being applied where advanced light guiding solutions are required. Ceres HOEs are recognised as a key enabling technology for new head up display (HUD) systems for automotive applications.

Interactive networking sessions

Who is Who
Discover who else is participating in the conference. The matchmaking picture wall will help you identify who you want to meet at the conference. In cooperation with FUJIFILM

Speed Networking
Maximise your time at this event by participating in these fast paced 1-to-1 meetings. Get to know the other attendees and exchange your business cards. Have your business cards ready!

Panel Discussion
Steer this interactive panel discussion with your questions to our panel of experts and use the opportunity for further discussion.

Open Mic
Address your current challenges or questions to the audience and discuss collectively possible approaches and solutions.

Q&A
Make your topic part of the agenda and pose the question you are currently most concerned with. Submit your questions in advance via yourquestions@iqpc.de oranonymously on the day.

Deep Dive
Choose your main discussion topic and deepen your knowledge in close dialogue with experts through your questions.

Hands On
Join us in the exhibition area to experience the latest innovations in display technologies.
09:15 Registration and welcome coffee

Who is Who
Discover who else is participating in the conference. The matchmaking picture wall will help you identify who you want to meet at the conference. In cooperation with FUJIFILM

09:45 Opening remarks by Robert Isele, Manager, Ambience Light, Modular System, Interior Lighting, BMW, Germany

10:00 Enhancing LCD and OLED performance for automotive application by specific display algorithms
- Comparison between LCD and AMOLED regarding automotive application
- Local dimming of LCDs for enhancing contrast
- Suppression of image sticking at AMOLED displays
Prof. Dr. Chihao Xu, Professor of Department of Microelectronics, University of Saarland, Germany

10:45 Speed Networking
Get in touch with the other conference guests in quick paced 1-1 meetings – make sure you bring a stack of business cards.

11:30 Coffee break and networking opportunity

12:00 Specific requirements for driver information displays and Head-Up-Displays and their effective integration into the overall vehicle architecture
- Impact of future driver assistance systems and customer expectations on automotive displays
- Increasing demands on functional safety requirements
- Performance requirements
- Effective integration into the overall vehicle architecture
- Technology trends: cluster instruments & Head-Up-Displays
Jan Faber, Architecture Instrument Cluster / Head-Up Displays, Audi, Germany

12:45 Panel Discussion – Match & Win? consumer electronics vs. automotive
Different requirements need to be fulfilled in the automotive industry when compared to the consumer electronics industry. How can the different segments maximise benefit from each other and what are the expectations of the end user. Learn from the experts about topics that will include:
- Requirements for display performance and safety automotive vs. consumer electronics
- A question of durability
- Cross-industry benefits
Chaired by Chulhong Kim, PhD, Head of Global Open Innovation Department, LG Display Co. Ltd., South Korea

13:30 Networking luncheon

15:00 Testing and simulation of display devices
- Real life testing of reliability and longevity
- Climate testing: what are the temperature boundaries for various display technologies
- Safety requirements of display devices
Prof. Dr. Karlheinz Blankenbach, President of the German Flat Panel Display Forum, University of Pforzheim, Germany

15:45 Intuitive interaction with touch displays
- Key technologies for user input
- Key technologies for user output
- HMI technologies to increase joy of use
- System integration for display products
Kai Hohmann, Principal Technical Expert Automotive Displays, Group Leader Center of Competence Display, Continental Automotive GmbH, Germany

16:30 Q&A Session
Make your topic part of the agenda and pose questions in advance via yourquestion@iqpc.de or anonymously on the day

17:00 Closing remarks by Robert Isele, Manager, Ambience Light, Modular System, Interior Lighting, BMW, Germany

18:00 Evening get-together
Join us for an informal evening get-together! This is an excellent opportunity for you to meet the other attendees and make new business contacts.
09:00 Registration and welcome coffee

09:30 Opening remarks by
Robert Isele,
Manager, Ambience Light, Modular System, Interior Lighting,
BMW, Germany

09:45 HMI visualization for assisted and automated driving
- Benchmark and market situation
- HMI development process
- Validation and verification
- Integration versus separation of assist features
- Solutions and recommendations
Johannes Mihm,
Human Factors Specialist, Cockpit Electronics, Electrical
and Electronic Systems Engineering, Ford Werke, Germany

10:30 Hands on session: Exhibition Lounge
Join us in the exhibition area to experience the latest innovations in display technologies

11:00 Morning coffee and networking opportunity

11:30 Display technology as an enabler for novel HMI
- Display technologies enabling a “Now, In A While, Whenever” information strategy: head-up display, instrument cluster display, and infotainment touchscreen
- Visual performance and HMI technology considerations for these displays, such as ambient readability, glove touch, etc.
- Future trends
David Hermann,

12:15 Deep Dive
New HMI possibilities through advancing displays technologies
With new display technologies come new possibilities of displaying information and enhancing the user experience. How do HMI requirements influence display design and developments? Join this open discussion and learn more about:
- Legal requirements for driver distractibility
- Display legibility and visual performance
- Possibilities for night vision systems

13:00 Networking luncheon

14:30 Head Up Display from combiner HUD to augmented reality
- Head Up Display general description
- Augmented reality features and objectives
- HUD for augmented reality main challenges
Stephane Feron,
HMI Expert, PSA Peugeot Citroen, France
Laurent Le Guen,
Expert for Cluster / Display / HUD, PSA Peugeot Citroen, France

15:15 Enabling next generation automotive Head-Up-Display systems with advanced photopolymer Holographic Optical Elements (HOEs)
- Advanced digital holographic printer and replication technology
- HOE mastering & production for ‘in-plane’ and ‘virtual-image’ HUD systems
- Automotive CAD model to final HOE – an engineered solution
- Highly transparent photopolymer HOEs suitable for windscreen lamination
- A new in-plane HUD concept – Compact, low cost, using LED projector
Dr Ian Redmond,
CEO, Ceres Holographics Ltd., UK

16:00 Open Mic
Your final chance to discuss challenges or questions with the audience and collectively find possible approaches and solutions

16:30 Closing remarks by
Robert Isele,
Manager, Ambience Light, Modular System, Interior Lighting,
BMW, Germany

16:40 End of Conference

5 Reasons to attend:
- Discover the latest trends for display technologies in the automotive industry
- Gain knowledge about new developments in haptic display technologies for an improved user experience
- Discuss new TFT LCD screens and OLED materials being used to further improve their optical properties
- Look at novel HUD and Augmented Reality technologies and projection systems
- Find out about new concepts for E/E- and interior architecture and how these are being integrated into the vehicle for maximum safety and energy efficiency

To Register | T +49 (0)30 20 91 33 88 | F +49 (0)30 20 91 32 10 | E eq@iqpc.de | www.automotivedisplays-conference.com/MM
Workshop A  09:00 - 12:00
New developments in HUD, projection technologies and augmented reality
Aims of the workshop include discussing what the role of HUD is now and in the future with upcoming new driving modes and tasks, based on different available HUD technologies.
In addition to that a central question is: What is the role of the Augmented-Reality HUD in a holistic human machine interface approach in the cockpit in the future

- New Developments in HUD
- New Projection Technologies
- The Role of HUD and AR-HUD in the Future
- How to ensure readability of safety relevant information under all kinds of conditions, e.g. while driving?

Dr. Pablo Richter,
Senior Technical Expert Head-Up Displays,
Continental Automotive GmbH, Germany

Workshop B  09:00 - 12:00
Optimised planning procedures for vehicle integration of displays
During this workshop you are invited to actively discuss how to optimise the planning process of integrating new display technologies into the automotive cockpit. What considerations must be made at all stages of the development of a new display concept. Topics that will be covered include:
- How to realize a homogenous appearance of multiple displays with different technologies in a vehicle covering all environmental conditions?
- Demand on High speed interface Links for high resolution displays
- Safety requirements for automotive displays (instrument clusters, Head-Up-Displays, rear-view-displays, …)

Jan Faber,
Architecture Instrument Cluster/Head-Up Displays,
Audi, Germany

Workshop C  13:00 - 16:00
HMI Considerations for Design Processes of Automotive Displays
The aim of this workshop is to focus on the various technologies behind automotive displays that enable different display-based modalities of interaction between the driver and the vehicle, such as touchscreens, head-up displays, proximity sensing and haptics. An open discussion between the workshop participants around these and other aspects related to the technical display designs that enable new and user-friendly visual-based HMIs, is encouraged. Suggested discussion topics for the workshop include:
- “Getting the message across”: How to ensure readability of critical information under all kinds of lighting situations, while driving?
- How will touch, haptics, proximity and gesture technologies evolve in the next five to ten years?
- How will HUD technology evolve in the next five to ten years?
- Will rear- and side-view mirrors be replaced by displays? Is this desirable?
- Autonomous Driving – consequences for display technology?

David Hermann,
Technical Expert – Visual Performance and Display Technology,
Volvo, Sweden

Workshop D  13:00 - 16:00
Display metrology: Tricks and pitfalls
This workshop provides the fundamentals for optical display measurements. The attendees will learn about fundamentals and special or dedicated measurements. Special attention is made on merits, tricky things and shortcomings of measurements. This enables to judge on the value of measurement tasks and allows a critical review of the results. Topics to be discussed include:
- What is in an optical display specification - and what not?
- Fundamentals: luminance, contrast, grey scale, colour
- Special measurements “Time”: lifetime, response time, G2G
- Advanced measurements: ambient light, viewing angle

Prof. Dr. Karlheinz Blankenbach,
President of the German Flat Panel Display Forum,
University of Pforzheim, Germany

Looking to gain more insight into the topic of this conference? Want to stay on top of developments and the latest trends in the automotive industry? Then become a member of Automotive IQ. Membership is free. www.automotive-iq.com
**10 - 12 May 2016 | Sheraton Essen Hotel, Germany**

### Conference Packages

<table>
<thead>
<tr>
<th>Conference Packages</th>
<th>Early Bird Book &amp; pay until 04 March 2016</th>
<th>Early Bird Book &amp; pay until 15 April 2016</th>
<th>Standard Price</th>
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<tr>
<td>Bronze Package 2 day conference</td>
<td>€ 100, - + VAT</td>
<td>€ 100, - + VAT</td>
<td>€ 2.699, - + VAT</td>
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<tr>
<td>Silver Package 2 day conference + 1 workshop</td>
<td>Save € 300,- + VAT</td>
<td>Save € 200,- + VAT</td>
<td>€ 3.199, - + VAT</td>
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<tr>
<td>Gold Package 2 day conference + 2 workshops</td>
<td>Save € 400,- + VAT</td>
<td>Save € 300,- + VAT</td>
<td>€ 3.499, - + VAT</td>
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</tbody>
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Every registration includes a complementary membership to Automotive IQ

The delegate fee includes the following services:
- Access to the purchased conference packages
- Catering during the entire conference
- Conference documentation

Please indicate your choice of workshop on Thursday, 12 May 2016

- Workshop A: Head-up display and augmented reality: Projection and screen technologies
- Workshop B: Optimised planning procedures for vehicle integration of displays
- Workshop C: HMI considerations for design processes of automotive displays
- Workshop D: Display Metrology: Tricks and Pitfalls

Please note: Workshop A and B as well as Workshop C and D are running parallel. Please make your choice.

### 4 Ways to Register

Fax: +49 (0)30 20 91 32 10
Post: IQPC Gesellschaft für Management Konferenzen mbH
Friedrichstraße 94
10117 Berlin, Germany

Online: www.automotivedisplays-conference/MM
Email: eq@iqpc.de

**Venue and Accommodation**

Sheraton Essen Hotel, Germany
More details coming soon

Accommodation: A limited number of reduced rate rooms are available at the conference hotel. Please always quote the booking reference IQPC-Berlin. Hotel accommodation and travel costs are not included in the registration fee.

**Payment Terms**

Payment is due on receipt of the invoice.

#### Cancellations and Substitutions

DELEGATES MAY BE SUBSTITUTED AT ANY TIME. IQPC GESSELLSCHAFT FÜR MANAGEMENT KONFERENZEN mbH DOES NOT PROVIDE REFUNDS FOR CANCELLATIONS. HOWEVER, SAVE WHERE WRITTEN NOTICE OF CANCELLATION IS RECEIVED MORE THAN SEVEN (7) DAYS PRIOR TO THE CONGRESS, A CREDIT TO THE VALUE PAID AT THAT DATE WILL BE ISSUED, WHICH MAY BE USED AGAINST ANOTHER IQPC GMBH CONGRESS FOR UP TO ONE YEAR FROM ITS DATE OF ISSUE.

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