TUESDAY, SEPTEMBER 28, 2021

7:30 am – 5:00 pm  REGISTRATION OPEN

7:30 – 8:30 am  BREAKFAST

8:35 – 8:45 am  Welcoming Remarks
Silviu Pala, Automotive Display, Southfield, MI, US

9:00 am – 5:00 pm  TABLETOP EXHIBITS OPEN

8:45 – 9:30 am  KEYNOTE ADDRESS
Automotive Augmented Reality: User Experience and Enabling Technology
Kai-Han Chang and Thomas Seder
Vehicle Systems Research Lab, General Motors Research and Development, MI, US

9:30 – 10:00 am  REFRESHMENT BREAK (Exhibit Hall)

SESSION 1: AUTOMOTIVE MARKET (10:00 – 11:00 am)
Co-Chairs:  Silviu Pala, Automotive Display, Southfield, MI, US
Michael Boyd, Yazaki North America, Canton, MI, US

10:00 – 10:20 am  INVITED ADDRESS
1.1  The Evolution of Displays in Automotive
Kyle Davis, IHS Markit, Southfield, MI, US

10:20 – 10:40 am  INVITED ADDRESS
1.2  Automotive Touch Screen, Display, ADAS, Touchless Control, Smart Windows and EV Battery Market

10:40 – 11:00 am  INVITED ADDRESS
1.3  The Display Industry Post Pandemic
SESSION 2: EXHIBITOR PRESENTATIONS (11:00 am – 12:45 pm)
Co-Chairs: Bruce Banter, Tech-D-P Inc., Northville, MI, US
           Eric Miciuda, Continental Corporation, Auburn Hills, MI, US

12:45 – 2:00 pm   LUNCH

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SESSION 3: NEW DISPLAY SOLUTIONS (2:00 – 3:00 pm)
Co-Chairs: David Lambert, Panasonic, Farmington Hills, MI, US
           Jerzy Kanicki, University of Michigan, Ann Arbor, MI, US

2:00 – 2:20 pm   An Automotive Display Driver IC with Embedded Local Dimming
                  and 10-bit Color Depth
                  Cheng-Chih Deno Hsu, Himax Technologies, HsinChu City, Taiwan

2:20 – 2:40 pm   Design and Operation of Front Passenger Infotainment Displays
                  without Driver Distraction
                  Graham J. Woodgate and Jonathan Harrold, RealD ME, Oxford, UK
                  Michael G. Robinson, Benjamin C. Ihhas, Robert A. Ramsey,
                  RealD ME, Boulder, CO, US

2:40 – 3:00 pm   Invisible Pillar - Dynamic Content, Far Focused, Sunlight Rejecting
                  Vehicle Pillar Display System
                  Nelson R. Mino and William Hutchinson, Thomas Global Systems LLC,
                  Irvine, CA, US

SESSION 4: DISPLAY METROLOGY (3:00 – 3:40 pm)
Co-Chairs: Kimberly Peiler, OSRAM Opto Semiconductors, Inc., Novi, MI, US
           Michael Koch, Denso, Southfield, MI, US

3:00 – 3:20 pm   Current Standardization Efforts and Measurement Procedures of
                  German Flat Panel Forum (DFF) for Automotive OLED Displays
                  K. Blankenbach and F. Bhatti, Display Lab Pforzheim University, Pforzheim, Germany
                  M. Stuetzel, SensoTec, Garching, Germany
                  M. Pohl, BHTC, Lippstadt, Germany
                  S. Proemmel, Yanfeng Technology, Neuss, Germany I. Rotscholl,
                  TechnoTeam, Ilmenau, Germany
                  O. Bader, OB-Consulting, Warthausen, Germany
                  D. Schaffer, Dexerials Europe, Frankfurt, Germany
3:20 – 3:40 pm  Photometric Robotics for Fast and Precise Human-Centered Automotive Display Metrology
Jason Aaron Adams, Vision USA Inc., Orlando, FL, US
Ingo Rotscholl and Udo Krüger, TechnoTeam Bildverarbeitung GmbH, Ilmenau, Germany

4.3  WITHDRAWN

3:40 – 4:20 pm  REFRESHMENT BREAK (Exhibit Hall)

SESSION 5: TOUCH HMI and DRIVER/INTERFACE (4:20 pm – 5:20 pm)
Co-Chairs: Bruce Banter, Tech-D-P Inc., Northville, MI, US
Drew Harbach, Peterbilt Motors, Denton, TX, US

4:20 – 4:40 pm  Rethinking Touch HMI Controls for Automotive Displays and Smart Surfaces
Kevin Klein, Tanvas, Inc., Chicago, IL, US

4:40 – 5:00 pm  Touch Technology for Automotive Applications Including Linear Correlating Infrared
Robert D. McCulloch, A D Metro, Ontario, Canada

5:00 – 5:20 pm  A New Touch Sensor for Driver and Passenger Identification
Gerald Morrison, Dan Van Ostrand, Steve Sedaker, SigmaSense LLC, Austin, TX, US

5:20 – 6:05 pm  TUTORIAL on Micro-LEDs for Automotive Displays

6:15 – 9:00 pm  OPTIONAL NETWORKING DINNER AT BURTON MANOR
Additional Charge (See Registration Desk)
Supported by RADIANT VISION SYSTEMS
We value your input and need you to participate in today’s Best in Show voting in the exhibit hall at Vehicle Displays & Interfaces 2021.

Please go to https://www.surveymonkey.com/r/VH21BIS

The survey provides a list of all the exhibitors, and we would appreciate you voting on the one that most deserves the Best of Show award in your opinion. Please vote by close of show on Tuesday, September 28, 2021. Thank you for your participation.

The Best in Show award is intended to honor the most significant advances in automotive display and HMI technology presented by exhibitors during this show. This competition is open to all exhibitors on the show floor. The criteria for judgement are:

a. Timeliness and significance to the automotive display industry of the products, prototypes, processes, and technologies exhibited.

b. Creative use of audio, visual, or other effects to present and highlight the new material.

PLEASE COMPLETE THE ONLINE FORM BY THE END OF THE FIRST DAY (TUESDAY, SEPTEMBER 28, 2021). Visit the registration desk if you are unable to access the online form.

Virtual Content for Vehicle Displays & Interfaces 2021

The organizing committee for Vehicle Displays & Interfaces 2021 would like to thank all our attendees, presenters, and exhibitors. We are grateful to come together once more for our annual event in Detroit.

The presentations from the symposium as well as the virtual booths from exhibitors who were not able to travel to Detroit will be available online to registered attendees during the first week of October.

Log-in details will be e-mailed Monday, October 4, 2021.
WEDNESDAY, SEPTEMBER 29, 2021

7:30 am – 12:00 pm REGISTRATION OPEN

Supported by

7:30 – 8:30 am BREAKFAST

Supported by

8:45 – 9:00 am Local SID Chapter Awards
Bob O’Brien, Display Supply Chain Consultants, Ann Arbor, MI, US
Silviu Pala, Automotive Display, Southfield, MI, US

9:00 am – 2:00 pm TABLETOP EXHIBITS OPEN

SESSION 6: PROJECTION and HEAD-UP DISPLAYS (9:00 – 11:00 am)
Co-Chairs: Ross Maunders, Stellantis, Auburn Hills, MI, US
Dan Cashen, Continental Automotive Group, Auburn Hills, MI, US

9:00 – 9:20 am Improving Holographic Image Quality with a Piston-Mode Spatial Light Modulator
Kai-Han Chang, General Motors, R&D, Warren, MI, US

9:20 – 9:40 am 3D AR-HUD Displays with Pupil Tracking and Rendering Engine
Hakan Urey, CY Vision, San Jose, CA

9:40 – 10:00 am Turn Any Window into a Bright, Colorful Display: Smart Glass Films and Projector Design Considerations for Automotive Windshield Designs
Ross Schneider and Michael Firth, Texas Instruments, Dallas, TX, US

10:00 – 10:20 am VideowindoW Automotive Application
Remco Veenbrink, VideowindoW, Delft, Netherlands

10:20 – 10:40 am Application of a Fully Transparent Photoluminescent Display on Vehicle Glazing and Interior Surfaces
Ted Sun, Leonard Sun, Bolt Cheng, Sun Innovations, Inc., Fremont, CA, US

10:40 – 10:40 am Consideration of Image Distance on Cognitive Tunneling with Augmented Reality Head Up Displays
Joseph Pullukat and Ethan To, NS North America/Nippon Seiki, Troy, MI, US
**SESSION 7: PANEL DISCUSSION on Future Displays for Future EV (11:15 am – 12:00 pm)**

11:15 am – 12:00 pm  
**Moderator:** Bob O'Brien, *Display Supply Chain Consultants, Ann Arbor, MI, US*  
**Participants:** Members of government, academia, industry

12:00 am – 1:00 pm  
**LUNCH**  
*Supported by* [SHARP](#)

SESSON 8: MATERIALS, FILMS AND COATINGS (1:00 – 3:00 pm)  
*Co-Chairs:*  
Kai-Han Chang, *General Motors Global R&D, Pontiac, MI, US*

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<tr>
<th>Time</th>
<th>Title</th>
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| 1:00 – 1:20 pm | Introduction of Novel Particle-Arrayed ACF for Fine Pitch Connection                    Daisuke Hanai, *Dexerials Corporation, Shimotsuke-shi, Japan*
| 1:20 – 1:40 pm | Material & Process of Structural Bonding for Automotive Displays                       Penny Yi Pan, *Henkel China Investment Co., Ltd., Shanghai, China*
| 1:40 – 2:00 pm | Digitization of Light and the Trends on Automotive Exterior Lighting                    Richard Nguyen and Kimberly Peiler, *ams OSRAM, Novi, MI, US*  
Ulrich Kizak, *ams OSRAM, Regensburg, Germany*
| 2:00 – 2:20 pm | Expanded Capabilities of High-Performance Optically Clear Adhesives                    Ryan Eismin, Olivier Wang, Shingo Amari, Guido Timmermanns,  
Abel Ebongue, *3M, Saint Paul, MN, US*
| 2:20 – 2:40 pm | High Refractive Index Silicone OCRs for Automotive Display Applications                Thomas Gadda, *PiBond, Espoo, Finland*
| 2:40 – 3:00 pm | New Modeling: How Advanced Light Control Film Improves                                John VanDerlofske, Jincy Jose, Matt Philippi, *3M, St. Paul, MN, US*  
Design Flexibility and Vehicle Safety