

SID VEHICLE DISPLAYS & INTERFACES 2023
30th ANNUAL SYMPOSIUM AND EXHIBITION
PROGRAM

September 26-27, 2023

Huntington Place, Detroit, MI

TUESDAY, SEPTEMBER 26, 2023

7:00 am – 5:00 pm **REGISTRATION OPEN**

7:00 am – 8:30 am **BREAKFAST**

Breakfast supported by



8:05 – 8:15 am **Welcoming Remarks**
Silviu Pala, Automotive Display, Southfield, MI, US

8:15 – 9:00 am **KEYNOTE ADDRESS: Cockpit of the Future**
Daniel Cashen, Stellantis, Auburn Hills, MI, US

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

9:00 – 9:20 am **REFRESHMENT BREAK (Exhibit Hall)**

Break supported by



SESSION 1: AUTOMOTIVE MARKET (9:20 – 10:20 am)

Co-Chairs: Silviu Pala, Automotive Display, Southfield, MI, US
Michael Boyd, Yazaki North America, Canton, MI, US

9:20 – 9:40 am **INVITED ADDRESS**
1.1 Kyle Davis, S&P Global Mobility, Southfield, MI, US

9:40 – 10:00 am **INVITED ADDRESS**
1.2 Bob O'Brien, Display Supply Chain Consultants, Ann Arbor, MI, US

10:00 – 10:20 am **INVITED ADDRESS: The Future of Automotive Display Design and
1.3 Technology: A Look Ahead**
Stacy (You-Xiang) Wu, Omdia Research, Taipei, Taiwan ROC

EXHIBITOR PRESENTATIONS (10:20 am – 12:00 pm)

Co-Chairs: Bruce Banter, Tech-D-P Inc., Northville, MI, US
Eric Miciuda, Continental Corp., Auburn Hills, MI, US

12:00 – 1:40 pm LUNCH and TABLETOP EXHIBITS

Lunch Supported by



SESSION 2: HEAD-UP DISPLAYS I (1:40 – 2:40 pm)

Chair: Bruce Banter, Tech-D-P Inc., Northville, MI, US

1:40 – 2:00 pm **Automotive Augmented Reality Head-Up Display Egomotion**
2.1 Michael Bork, Stellantis, Auburn Hills, MI, US

2:00 – 2:20 pm **Perceived Brightness Comparison of High and Low Chromaticity**
2.2 **Head-Up Displays**
Joe Pullukat, Nippon Seiki International, Troy, MI, US

2:20 – 2:40 pm **A Proactive Approach to Virtual Image Placement for AR HUDs**
2.3 Esaias Peck, Stellantis, Auburn Hills, MI, US

2:40 – 3:00 pm REFRESHMENT BREAK (Exhibit Hall)

Break supported by



SESSION 3: NEW DISPLAY SOLUTIONS I (3:00 – 4:00 pm)

Chair: Michael Bork, Stellantis, Auburn Hills, MI, US

- 3:00 – 3:20 pm **New Vehicular Display Solutions Enabled by Novel Emissive Projection
3.1 Screen**
Ted Sun, Sun Innovations, Fremont, CA, US
- 3:20 – 3:40 pm **The Automotive Rear-View Mirror Replacement System of the Future
3.2 Rolf-Dieter Naske, PsHolix, Kakenstorf, Germany**
- 3:40 – 4:00 pm **Quantum Dots Automotive Displays - Quantum Dots in miniLED-based
3.3 FALD BLU and Flicker-Free Performance**
Michael A. Spitzley, Harman International Industries, Inc., Novi, MI, US

SPECIAL MICROLED SESSION (4:00 – 5:10 pm)

Chair: Thomas Seder, GM, Warren, MI, US

- 4:00 – 4:30 pm **TUTORIAL: MicroLED Display: An Innovating Display
and Its Commercialization to Automotive Application**
Evan Liu, AUO, Hsinchu, Taiwan ROC
- 4:30 – 5:10 pm **INVITED PRESENTATION: MicroLED Microdisplays for HUDs**
Nikhil Balram, Mojo Vision, Saratoga, CA, US
- 6:00 – 9:00 pm **OPTIONAL RECEPTION AND DINNER**
Additional Charge (See Registration Form)

WEDNESDAY, SEPTEMBER 27, 2023

7:30 am – 12:00 pm **REGISTRATION OPEN**

7:30 am – 8:30 am **BREAKFAST**

Breakfast supported by



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

8:15 – 8:30 am **Local SID Chapter Awards**

Bob O'Brien, Display Supply Chain Consultants, Ann Arbor, MI, US

Silviu Pala, Automotive Display, Southfield, MI, US

STUDENT PRESENTATIONS (8:30 am – 8:50 am)

Chair: Bob O'Brien, Display Supply Chain Consultants, Ann Arbor, MI, US

SESSION 4: HEAD-UP DISPLAYS II (8:50 – 9:50 am)

Co-Chairs: David Lambert, Panasonic Automotive, Farmington Hills, MI, US

Drew Harbach, Peterbilt Motors Co., Argyle, TX, US

8:50 – 9:10 am **Towards Next-Generation Immersive Navigation: Realistic 3D**

4.1

Representations from 2.5D Maps for Enhanced Visual Realism

Sunghwan Choi, LG Electronics, Seoul, South Korea

9:10 – 9:30 am **Overcoming AR HUD Latency and Distortion Challenges with DLP**

4.2

Technology Integrated Image Processing

Sam Martin, Texas Instruments, Inc., Dallas, TX, US

9:30 – 9:50 am **NanoAR: Transparent Displays for Infotainment Systems in**

4.3

Automobiles

Yongjing Wang, Photonic Crystal Co., Ltd., San Jose, CA, US

PANEL DISCUSSION on Display Supply Chain Challenges (9:50 – 10:20 am)

Moderator: Bob O'Brien, Display Supply Chain Consultants, Ann Arbor, MI, US

Panelists: Eric Luebke, Display Purchasing Manager, Ford Motor Company, Dearborn, MI, US

Matt Ke, Director, Automotive BU, AUO, Hsinchu, Taiwan

10:20 – 10:40 am REFRESHMENT BREAK (Exhibit Hall)

Break supported by



SESSION 5: NEW DISPLAY SOLUTIONS II (10:40 – 11:40 am)

Chair: Mark Larry, Ford Motor Co., Macomb, MI, US

10:40 – 11:00 am **Digital LED Innovative Products for High-Performance Automotive Displays**
5.1 Severine Cheramy, ALEDIA, Echirolle, France

11:00 – 11:20 am **Optical Decoration Film**
5.2 Cyun-Tai Hong, Benqmaterials, Taoyuan, Taiwan ROC

11:20 – 11:40 am **Introduction of Electrically Insulating Thermal Interface Material with Aligned Boron Nitride (BN) Fillers**
5.3 Tomoyuki Yoshida, Dexerials Corp., Shimotsuke, Japan

SESSION 6: DISPLAY SYSTEMS AND FILMS (11:40 am – 12:40 pm)

Chair: Thomas Seder, GM, Warren, MI, US

11:40 am – 12:00 pm **Combined Arrhenius and Inverse Power Law OLED Life Prediction Method**
6.1 Brian Hayden, Visteon, Van Buren, MI, US

12:00 – 12:20 pm **Augmenting User Experience with Low-Resolution Intelligent RGB Displays**
6.2 Johnathan Weiser, ams OSRAM, Novi, MI, US

12:20 – 12:40 pm **Further Improvement in Durability of Anti-Reflection Films**
6.3 Tadaaki Toyoshima, Dexerials Corp., Shimotsuke, Japan

12:40 – 2:00 pm **LUNCH and TABLETOP EXHIBITS**

Lunch Supported by



SESSION 7: METROLOGY AND TOUCH (2:00 pm – 3:40 pm)

Chair: Eric Miciuda, Continental Corp., Auburn Hills, MI, US

2:00 – 2:20 pm **Optimizing FALD Display Measuring Techniques for Halo Mura**
7.1 Jason Adams, TechnoTeam Vision USA, Orlando, FL, US

2:20 – 2:40 pm **Optical Characterization of Curved Displays**
7.2 Kevin Lange, Konica Minolta Sensing Americas, Ramsey, NJ, US

2:40 – 3:00 pm **Addressing the Unique Visual Inspection Challenges of Pillar-to-Pillar Displays**
7.3 Andrew Munro, Radiant Vision Systems, Redmond, WA, US

3:00 – 3:20 pm **Weatherproof and Night-Vision Optical Lens for AD/ADAS**
7.4 Ryohei Enomoto, Konica Minolta, Inc., Tokyo, Japan

3:20 – 3:40 pm **Advanced Technologies for Displays, Touchscreens, Sensors, and Processors**
7.5 Neil Bolding, MacDermid Alpha Electronics Solutions, South Plainfield, NJ, US