SMART AUTOMOTIVE SURFACES 2024

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SEPTEMBER 12, 2024 in Novi, Michigan

SHERATON DETROIT NOVI HOTEL

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REGISTER TO ATTEND



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SMART AUTOMOTIVE SURFACES 2024

7:30 a.m. Registration, Networking, and Continental Breakfast

8:30 a.m. Welcome and Opening Remarks Darren Nowak, Director, Research & Analysis The ITB Group

Smart Enablers

8:40 a.m. Innovative Continuous Fiberglass Reinforced Bio-based Polyamide Composite for Automotive Applications Alex Kedo, International Polyamide Development Cathay Biotech

A recent development of a bio-based thermoplastic continuous fiber and molding composite will be presented. This unique material was achieved through a combination of technologies including intelligent gene editing, smart production control technology using a previously developed bio-based, renewable, high-temperature modified polyamide. Properties, benefits and component applications will be highlighted.

9:00 a.m. Digital Detox Cabin

Brian Bober, Product Manager Instrument Panel & Eco Interiors

Marelli

Today we are inundated by our devices chiming and demanding attention. Our cars, once sanctuaries of solitude and personal space, have become a cocoon of glowing screens, ambient light and notifications. But what if future vehicle interiors give you the power to control what technology is visible? This is the basis for Marelli's "Digital Detox" interior.

9:30 a.m. KEYNOTE PRESENTATION

Advances in Smart Automotive Technologies and New Opportunities

Michael Rowe, Principal Scientist

Toyota Motor Company

A wide variety of automotive technologies have been brought forward that impact mobility in a range of applications. These include new black paint and plastics that are uniquely reflective in the infrared spectrum for improved LiDAR safety, shape memory alloy seat massage actuators, and innovative passive mechanical structures for vibration damping and isolation. These technologies span the length of a vehicle both inside and out and represent intellectual property portfolios available for new business development.

Functional Integration

10:50 a.m. Plastic-based Display Stacks in Automotive HMI Applications

Gerhard Scheuing, Product Manager Automotive, Senior Expert Touch Sensor Systems PolvIC

KURZ/PolyIC have built a selection of touch screen display stacks based on plastic cover lenses and PolyIC touch sensors to demonstrate cost savings and possible solutions for optical challenges in HMI screens. Performance characteristics, showing opportunities compared to glass-based solutions

11:10 a.m. Evolution on Decorative and Structural Parts with Functional Integration

Mark Bondi, Senior Application Development Engineer Covestro

along with dead front display decorations, will be

Automotive engineers and designers are encountering growing challenges as electronics, functionalities, lighting, and materials converge with current styling trends, creating new opportunities for illumination. Covestro will address case studies and strategies across various car segments and demonstrate how integrating polycarbonate materials with innovative design and manufacturing techniques can effectively address these trends.

11:30 a.m. A Perspective on Film Decoration Needs and Solutions (Next 5 Years)

Paul Rye, Sales Manager

KURZ

discussed.

KURZ will outline processing advances in DECOPUR and VARIOFORM film technologies together with future material developments and highlight new value propositions and applications.

11:50 a.m. ActivPlastics

Hugo Mestre, Group Innovation Director Novares

A patented touch-sensing technology that combines form and function to create intuitive and stylish automotive interiors will be presented. New perspectives on capacitive and pressuresensing touch controls, benefits for enhanced user experiences, ease of use, and application examples will be highlighted.

12:10 p.m. Lunch

Presentations will be made available to conference attendees two weeks after the conference has concluded AND when provided permission by the speaker

Future to Serial Production

1:25 p.m. Sunrise: A New Horizon of Integration Javier Cuadrado, Business Development Technology Solutions

Antolin

A cutting-edge cockpit that sets a benchmark in user experience and display integration will be presented. State-of-the-art 3D shaped surface displays, tactile interfaces, dynamic lighting, and vegetal coverings play a key role in elevating the overall user experience. Antolin and VIA optronics unveil the Sunrise cockpit and highlight the achievements of their alliance.

1:55 p.m. Development of Artificial Muscles for Interior Surfaces

Erin Rutledge, Program Coordinator – Future Mobility Research Department Toyota Motor Company

The future of passenger vehicle interiors should not be restricted by the functionality and packaging requirements of electric motors. Building upon Toyota's prior work, new research further improves their artificial muscle technology for implementation. Passenger experiences, applications, and developments with these actuators will be outlined.

2:25 p.m. Surfaces Can Still Be Smart: Leveraging Interiors for Intuitive User Experience Maggie Kasper, Surface Activation Sales Manager Forvia

The cockpit is experiencing a transformative revamp as consumers are finding HMI via display is not as intuitive or functional as anticipated. Forvia's approach to integrating advanced surface technologies to provide leading comfort, safety, and personalization within the cockpit will be presented.

2:55 p.m. Networking Break

Lighting and Haptics

3:25 p.m. Software Defined Lighting Choreography with an Open System Protocol (OSP) Michael Codwin, Director Automotive Applications

Michael Godwin, Director Automotive Applications ams-Osram

Functional or smart surfaces are now possible with OSP and sensing interfaces. In this presentation ams OSRAM will share its latest semiconductor innovations with new fab silicon capabilities and illustrate how the integration of silicon with intelligent drivers and the OSIRE family can deliver unimaginable animated lighting choreography in almost any application.

3:45 p.m. Innovative Optical-Electronic Systems: Realizing Light Effects and Perception

Dr. Matthias Lust, Head of Pre-Development and Patent Management

Preh

The integration of decoration and Human-Machine Interface (HMI) gives rise to smart surfaces, where light plays a crucial role beyond simple warning signals or creating a pleasant environment. Achieving an inspiring atmosphere requires sophisticated light and electronic systems that create stories with depth and fluidity, seamlessly integrating into the complete car interior along with displays.

4:15 p.m. New High-Luminance Segmented Display Technology for HMI and Smart Surface Applications

Dr. Uli Hiller, Principal Engineer ams-Osram

Automotive interior design trends include sleek and clean designs where HMI features will only become visible on demand. Black-panel-effects and Hiddenuntil-lit features are synonyms for this approach. The ALIYOS[™] LED on foil technology by ams-OSRAM addresses these trends, and prototypes showing different approaches for HMI and smart surfaces applications will be presented.

4:45 p.m. Closing Remarks



REGISTRATION FEE: \$900 USD PER PERSON