DrivingVisionNews.com

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Editorial

Paris DVN Workshop Postponed To 2023

Sigh. I hoped and wished I wouldn't have to make this announcement, but the Covid situation is getting worse and worse all over the world, especially in Europe. In France it is now forbidden to eat or drink while standing in any reception or similar gathering. Naturally that precludes networking, the main interest of congresses like the DVN Workshops. We prioritise safety for everyone involved with DVN events, and we just cannot guarantee it right now. Moreover, we think it would be unfair for exhibitors to get less than their money's worth due to reduced attendance and strict distancing requirements.

We value and appreciate the trust all DVN Gold members, and so we have made the unhappy choice to postpone the 2022 Paris DVN Workshop. I apologies to exhibitors who have been preparing their booths; the speakers working on their lectures, and to all attendees who saved the dates and booked their travel plans; we see this unhappy change of plan as less costly and disruptive than the real and potential negative consequences of trying to hold the Workshop during the pandemic's depths.

So, we set our sights and work hard to have a wonderful Paris DVN Workshop in the 1st quarter of 2023.

With that unpleasant news out of the way, I want to wish all the DVN community again a happy new year. Be sure and see our report on CES, published three days after the close of the event.

In Depth Lighting Technology

CES 2022: Many Cancellations, Yet Still Fruitful

CES is billed as the most influential tech event in the world, the showplace for breakthrough technologies and innovation. The world's biggest brands meet new partners, and sharp innovators hit the stage. CES 2022 is actually happening, though with major exhibitors staying home and flights being cancelled by the hundreds and thousands, it's a little difficult to imagine the in-person event having much in the way of legs. Lots of would-be booths are just empty floor space, and the number of attendees is way down, at probably historic lows. Google, GM, BMW, Mercedes-Benz, Panasonic, Intel, Waymo, T-Mobile, Amazon, Microsoft, and Nvidia are just some of the big-name exhibitors who didn't attend.

Nevertheless, the show *is* going on, and here are our six takeaways:

1) The show cars and unveiled production confirm the design trend

Slim headlamps and rearlamps, front end, new front end, grill, logo


M VERSION OF IX EV CROSSOVER


GM CHEVY EQUINOX

MERCEDES-BENZ VISION EQXX

2) Color-changing technology

BMW showed off a new technology: push a button, and *presto change-o*, the car changes from black to white, or a pattern of both.

3) Arrival of new OEM players

Brand-new brands like Indigo and VinFast as well as the first serious cars and concepts from the likes of previously non-automotive big names like Sony.


INDIGO NEW BRAND


SONY

VINFAST

4) Great Presence of Lidar players

Blickfeld, Innovusion, Luminar, Marelli AL, Opsys Tech, RoboSense, Valeo, Xenomatix, and ZF

INNOVUSION


OPSYS TECH


RONOSENSE


XENOMATIX

5) Great Exhibitions of Marelli and Kyocera SLD Lase

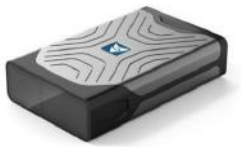
MARELLI AL FRONT END

KYOCERA ULTRA-WIDE RANGE OF LASER HIGH BEAMS

6) CES Innovation awards

ACTAJET SENSOR CLEANING SYST.

CEPTON NOVA LIDAR



AEYE 4SIGHT M

LUMOTIVE - LIDAR, PLATFORM

TRIEYE - SEDAR

XENOMATIX - XENOLIDAR-X

Lighting News

Myotek, Sea Link Are Now Luxit Group

LIGHTING NEWS

LUXIT GROUP CEO STEPHANE VEDIE

Myotek and Sea Link, along with their affiliates Amptech and Hicks Plastics, have been brought together as Luxit Group: a technology and expertise powerhouse in vehicle small lamp design and manufacturing, with a mission to inspire and guide the evolution of lighting for styling, branding, performance, and safety.

LUXIT
LIGHTING INNOVATION + TECHNOLOGY

Luxit CEO Stephane Vedie says, “For our employees and all of our stakeholders, it is important to bring our four companies under a common name as one streamlined organization. We all belong to one team and share the same goals. With the new year comes a great opportunity for us to launch our new organization, with Myotek serving as our brand for tier-1 business and Sea Link as our brand for tier-2 business. We are positioning Luxit as a global leader for automotive small lamp, auxiliary lighting, and components for both exterior and interior applications. With our global footprint and full vertical integration, we are able to serve our customers with speed, creativity, and flexibility”.

And Brian McGee, managing partner of Luxit majority shareholder New Water Capital, says “Luxit’s innovations and performance have driven significant growth for our automotive companies. We have

the leadership, financial resources, and the right technology in place for Luxit to reach new heights in growth and operational excellence”.

Luxit are a company of world-leading technology experts in vehicle small lamp design and manufacture. They're headquartered in Farmington Hills, Michigan, serving automakers and tier-1 customers separately under two divisions. Myotek, the tier-1 division, are renowned as a leading designer, manufacturer, and supplier of innovative vehicle lighting components. Myotek leverage global reach and logistical efficiency with their tech centre in Irvine, California; international sales and service offices in Michigan; Taiwan; and China, and eight manufacturing facilities—four in the United States, and two each in China and Taiwan—to serve automakers with unique solutions, competitive pricing, and aggressive time to market.

And Sea Link, the tier-2 division headquartered in Largo, Florida, are a leading supplier of vehicle lighting and infotainment engineering and manufacturing solutions. Sea Link specialise in cost-effective, precision-quality complex die casting; thixomolding; injection moulding; metallisation; PCB assembly, and assembled components. Four U.S. manufacturing facilities and two in China facilitate the company's time-efficient solutions, backed by sales and engineering offices in both Michigan and China to serve tier-1 customers.

TechnoTeam, LMT in Strategic Pact

LIGHTING NEWS

A new strategic partnership between LMT and TechnoTeam will combine the swiftness of digital imaging systems with the accuracy of traditional goniophotometers, to significantly reduce measurement times.

The cornerstone of the partnership: new methods of multi-sensor based goniophotometry enabling rapid acquisition of lighting distribution data. Currently, vehicle front and rear lighting distribution data is gathered by direct line scanning with a conventional goniophotometer over the device's emitting surface. The new methods generate the same light distribution data in a fraction of the time by means of screen-based indirect, single (or few)-shot measurement with digital imaging technology and a reflective screen.

By combining cameras and goniometers, successive images of the light distribution are projected onto the screen, recorded, and stitched together by sophisticated software into a complete distribution panorama. Time-consuming line scans are thus bypassed. Parallel measurements of the panorama data at a few points by a very finely corrected photometer with a high dynamic range are used to correct for inherent spectral mismatch and spatial stray light of the distribution when gathered only by a camera.

Both partners will contribute from their core competencies; TechnoTeam with CMOS camera-based imaging resolved light and colour measurement hardware and software, and LMT with goniometers, V(λ) adapted photometers, and associated hardware and software for technical and compliance characterisation of vehicle lighting devices.

TechnoTeam *are a German company with headquarters in Ilmenau and a subsidiary, TechnoTeam Vision USA. They manufacture measurement systems for digital image processing and image-resolving light and colour measurement technology. Their measurement systems are used in the development and production of luminous and illuminated devices, such as displays, headlamps, and luminaires.*

LMT*, a privately-owned company, have been producing premium photometric instrumentation since 1974. From their headquarters and manufacturing facilities in Berlin, LMT supply and support complete goniophotometric laboratories for the broad vehicle lighting industry.*

MARELLI AL: Great Exhibition Booth

LIGHTING NEWS

ILLUMINATED FRONT PANEL

Marelli had a Suite, by invitation only, in the exclusive Wynn hotel. A real great environment. The lighting part was presented by Laurent Meister, the display and interior by Francois Nivelle.
LED modules of the lighting part from cost effectice modules with very good lighting performance, but without advanced functions, up to high end DMD, Micro LED and Laser systems with latest technology.
MiniLED Technology tail lamps as a communication device, while maintaining all the functionality required for a stop lamp. It incorporates 7,680 mini LEDs mounted on a frame, which seamlessly integrates into the existing housing of a series production tail lamp.
Illuminated Front Panel, after launching for the first time an illuminated front panel for the VW ID6 CROZZ, it is a continuation of the unique front face styling of the ID family. Marelli Automotive Lighting provides concepts for illuminated logos permeable to radar rays, to address the growing trend for front panel illumination.

WOLFGANG HUHN WITH THE MARELLI AL TEAM

In the UX/UI area seamless combined displays were shown. No rim or gap visible. An interesting Software concept bringing mobile phone contend to the car display or re-arranging the content of the display with the own mobile was demonstrated. By using blockchain technology with car internal OTA interfaces this is fully secure against intruders. A new console concept was shown which can be switched from transparent to different content and it is of course not for a center console only.

KYOCERA SLD Laser: Night demo in the desert

LIGHTING NEWS

Wow, what a night demo in the desert. Congratulations from DVN to such an event. The quality of organization, information and live experience was fantastic. The ultra-wide range of Laser high beams were demonstrated on a Race Truck, the range was ca. 1 km. Test drives were possible with a professional driver on a desert track. A “moon vehicle” with Lifi communication and Lidar sensors was driving autonomously through the scene. Drones were illuminating the area. Over 100 Gbit/s Lifi communication was demonstrated.

World Record LiFi Communications Data Rate 100 times faster than 5G
KSLD’s DataLight LiFi innovation utilizes its award winning dual-emission visible and infrared LaserLight ™ sources. These sources enable customers to commercialize potent intelligent illumination systems including functionality of spatially dynamic lighting, night vision illumination, accurate sensing and 3D LIDAR, as well as optical power transmission. DataLight engines can be configured for customer specific applications and have exciting potential to be performance optimized using artificial intelligence and machine learning.

W. HUHN DVN, JOHN PEEK, KYOCERA SDL LASER

Valeo's Latest Lighting Innovations

LIGHTING NEWS

Valeo's **Automated Ground Delivery Vehicle (AGDV)** is meant to go circulating in an urban environment. To drive safely one must see and be seen; the same is true for an autonomous droid.

So, Valeo propose lighting and cleaning technologies and show how they can enhance safety.

Lighting and communication display with two major roles: to circulate safely on the road and ensure communication with other road users about its intentions, and to facilitate the business of the AGDV, by communicating to the customer information related to their order and facilitating the interaction with the droid.

Sensor cleaning will be mandatory. Valeo estimate that their all-seasons, all-weathers systems will improve the droid's usability rate from 55 to 100 per cent, raising the droid's profitability.

Valeo also have extended their work in assistance and protection to the inside of the vehicle, to come up with what they call Valeo Safe Insight. It combines several technologies to identify the driver and alert them in the event of distraction or drowsiness; recognise when passengers are on board and remind them to buckle their seatbelt, detect when there is someone in a stationary car and raise the alarm in case a child has been left behind, and other suchlike.

Driver Assistance News

Opsys in Lidar Deal With SL

DRIVER ASSISTANCE NEWS

Opsys solid-state lidar will be incorporated in headlamps produced by SL. Opsys Tech will deliver full production lidar systems to SL beginning in 2024 or '25.
The SL contract is one of several deals Opsys say they've inked with Asian suppliers to provide Opsys Microflash lidar sensors for production vehicles in the next two to three years.

The Microflash lidar's hundreds of lasers on each chip can fire in sequence, rather than all at once, scanning a scene at 1,000 frames per second. This ultra-rapid scanning improves the signal-to-noise ratio, so smaller objects can be detected at greater distances.

Opsys CEO Rafi Harel says the SL agreement "and others we expect to announce soon, are evidence the industry is recognising the superior performance and value of Opsys Tech lidar".
And SL senior R&D researcher Wanseok Kim says the integration "will enable SL to bring to market an automotive integrated lighting system with best-in-class lidar functionality". Kim added that SL anticipate introducing the first such products this year.

Innovusion Lidar for Nio Cars

DRIVER ASSISTANCE NEWS

Innovusion will supply hardware for Nio's ET7 electric sedan, which claims to provide nearly 1,000 km of range and full autonomous driving capability. The ET7 features NIO's NAD (NIO Autonomous Driving) technology which include Aquila Super Sensing, a suite of 33 high-performance sensors, each seamlessly integrated into the body of the car.

As part of the Aquila sensor suite, Innovusion's Falcon lidar (pictured) will give the ET7 unprecedented insight into the environment far in front of the car. Enabled by Falcon's long-distance capability and high angular resolution, vehicles can be detected 500 metres away, and even pedestrians and small road debris can be detected over 200 metres away.

Founded in 2016, Innovusion have core R&D teams in California, USA and Suzhou and Shanghai, China. Innovusion lidar is designed for autonomous driving, and Innovusion are cooperating with numerous leading companies in the fields of smart transportation, rail transit, and unmanned mining.

General News

New CEO for Marelli

GENERAL NEWS

David Slump (photo) is Marelli's new CEO. He arrives from Harman International, a $9bn wholly owned subsidiary of Samsung Electronics making connected products and solutions for automakers, consumers, and enterprises worldwide. Slump held a variety of leadership positions over nearly 15 years at Harman. He replaces Beda Bolzenius who, after most of four years with Marelli, is standing down as CEO.

Marelli executive chairman Dinesh Paliwal noted Slump's strong experience in the industries and regions Marelli operate in: "David’s ability to think strategically, rapid decision-making and focus on execution is the right combination that Marelli needs today".

Slump, for his part, says “I am delighted to join Marelli and work alongside a proven leader Dinesh Paliwal and the Marelli leadership team. The industry continues to be impacted by severe structural challenges, but I believe that the opportunity for Marelli and its customers is enormous. I will do everything to make all of our stakeholders proud as we continue to build and strengthen our company for the future".

New CEO for Volvo Cars

GENERAL NEWS

Volvo Cars CEO Hakan Samuelsson is retiring after nine years, and former Dyson boss Jim Rowan (photo) will replace him this coming 21 March.

Samuelsson joined Volvo Cars in 2010 as a member of the board of directors, then became president and CEO in October 2012. Under his leadership, Volvo adopted an aggressive schedule to phase combustion engines down and then out. Samuelsson's contract ends normally this year.

Rivian to Build Major Plant in Georgia

GENERAL NEWS

Rivian will expand their manufacturing operations with a second American plant in the state of Georgia. A carbon-conscious campus is planned east of Atlanta, representing a $5bn site development and manufacturing investment. The plant, which will eventually employ more than 7,500 workers, represents a key next step as Rivian scale up towards higher-capacity production for future vehicles. Once ramped, the Georgia facility will be able to produce up to 400,000 vehicles per year. Construction is expected to begin this summer, with production slated to start in 2024. Site considerations included logistics, environmental impact, renewable energy production, availability and quality of talent, and fit with Rivian company culture.

“The new manufacturing site will build our next generation of products that are important for scaling our business," said Rivian chief people officer Helen Russell in the release. "Our work together is driven by a compelling purpose and rooted in building a highly collaborative environment that creates a true sense of belonging".

Rivian’s almost 2,000-acre parcel will include abundant natural space. As with its facility in Normal, Illinois, Rivian will develop community engagement and workforce training programs in the area.

Rivian also are scaling up capacity at their existing Illinois plant, which was recently approved for a 623,000-square-foot expansion, which will bring its footprint up to about 4 million square feet, with further plans to extend warehouse, storage, and production capacity onsite. Rivian’s hiring in Normal is scaling rapidly, with plans to hire an additional 800-1,000 employees by the second quarter of this year.

Rivian and Georgia are planning 2022 town hall events near the manufacturing site so that area residents can learn more about the company and the site plan.