Wednesday, May 13, 2020

PHOTONICS spectra

PHOTONICS MEDIA

Monthly newsletter from the editors of Photonics Spectra, with features, popular topics, new products, and what's coming in the next issue.
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Ramping Up with High-Intensity Lasers

In Europe, China, and the U.S., laser projects — either built or planned — are ramping up intensity, with systems now reaching peak power of 10 petawatts (PW), or 10 million billion watts. On the drawing boards are lasers that will crack 100 PW peak power, which is high enough to create matter and antimatter from empty space.

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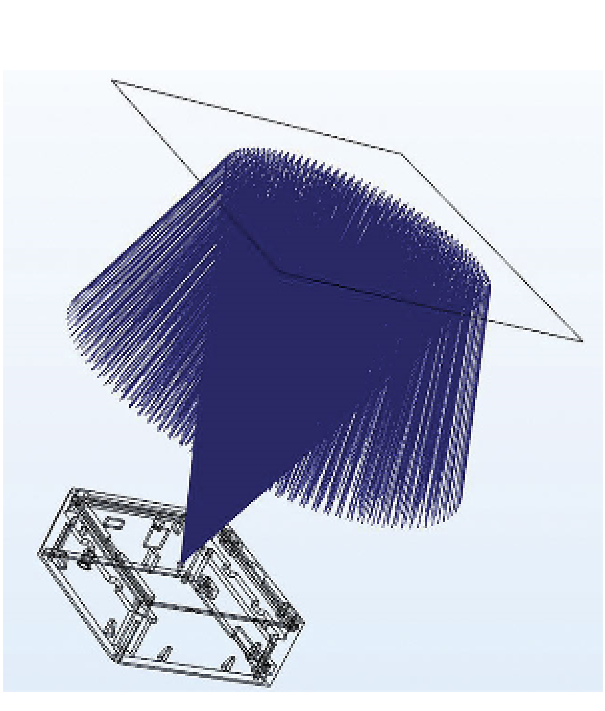
Lidar Design Optimization with Advanced Optical Resins



Designing new automotive lidar systems is a complex process, made easier with access to finite element method simulation software and materials data. One of the key simulations performed is time of flight, a process that measures the laser light's travel time to determine distance to an object. The distance is based on the time elapsed between emission of the signal or pulse and its return to the detector after being reflected by the object.

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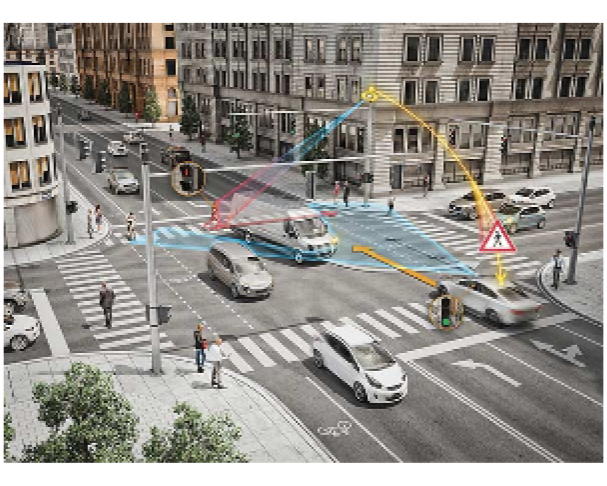
MEMBER EXCLUSIVE

Sensor Fusion: The Automotive 6th Sense



Advanced vehicles today are full of sensors for monitoring motion, speed, position, pressure, temperature, moisture, and emissions. The number of sensors in cars and trucks will only continue to grow as the demand for advanced driver-assistance systems and autonomous vehicles increases.

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Featured Products

TracePro **Optics and Illumination Software**

Lambda Research Corp.
TracePro combines a graphical user interface with solid modeling, Monte Carlo ray tracing, analysis features, CAD import/export, optimization methods, and a complete and robust macro language to solve a wide variety of problems in illumination design and optical analysis.

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Take It Online!

Kentek Corp.
LSO, Basics & Industrial Laser Safety Training Courses Kentek is making it easier for you to get your laser safety training. Convenient online laser safety courses save time and eliminate travel. Kentek's Basics of Laser Safety online course was designed to meet all basic laser safety...

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PMManager Power Meter Data Acquisition

MKS/Newport
PMManager is a powerful application software controlling and taking measurement data, compatible with models 1919-R, 843-R-USB and 841-PE-USB. It turns a PC into a laser power multi-channel analysis workstation. Features include: extensive graphic display of data, advanced measurement processing,..

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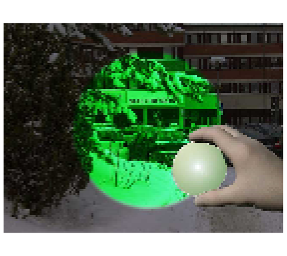

IR Filters for Thermal Imaging and Gas Detection

Spectrogon US
Spectrogon manufactures infrared filters and windows with high transmission, high rejection outside the passband, and introducing low cosmetic defects — while maintaining excellent coating uniformity — for thermal imaging applications such as cryogenically cooled IR detectors...

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Glass Processing & Automation

NYFORS Teknologi AB
The NYFORS SMARTSPLICER is a CO2 laser glass-processing system designed for the production of high-power and sensitive photonic components. It offers contamination-free end-capping, splicing, tapering, bundling, and many other glass-shaping processes. NYFORS provides auto-mated high-precision solutions for fiber...

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Full Digital High Definition OLED Microdisplay

Yunnan OLiGHTEK Opto-Electronic Technology Co. Ltd.
The prominent high-definition OLED full digital microdisplays by OLIGHTEK profoundly widen near-to-eye applications and lead the way in near-to-eye technology. OLIGHTEK's full digital high-definition OLED microdisplays are available for new applications...

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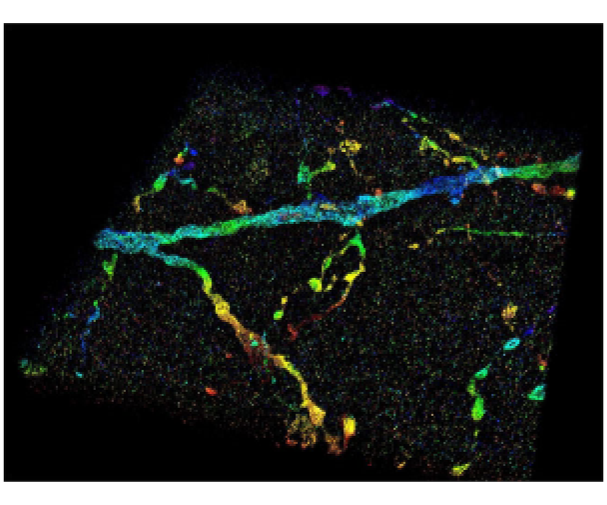
In Case You Missed It

Imaging Technology Allows Superresolution of Nanoscale Structures Inside Whole Cells



Purdue University researchers have developed a technology that enables 3D superresolution imaging inside whole-cell or tissue specimens. The technology allows scientists to locate the positions of biomolecules inside whole cells and tissues with a precision down to a few nanometers.

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Color-Measuring Device to Expedite Manufacturing

A method using the color intensity of light to measure chemical concentrations may soon help speed the processes for developing medications, printers, and other products.

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Photocatalysis Could Be Used to Inactivate Coronaviruses

Rice University researchers plan to reconfigure their wastewater-treatment technology to capture and deactivate the virus that causes COVID-19. Their chemical-free nanotechnology, introduced earlier this year as a way to kill bacterial "superbugs" and degrade their antibiotic resistance genes in wastewater, will use graphitic carbon nitride to selectively adsorb viruses and then disable them by activating nearby catalysts with light.

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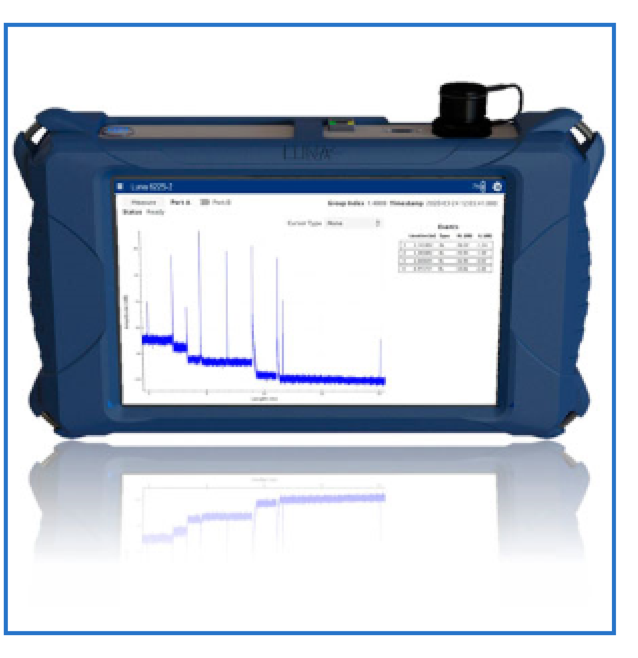
Webinars

Upgrade Your Fiber Optic Diagnostics with Portable Ultra-High Resolution Optical Backscatter Reflectometry



Tue, Jun 2, 2020 1:00 PM - 2:00 PM EDT

This webinar, presented by Luna Innovations Inc., will explain how optical backscatter reflectometry (OBR) technology can locate and analyze issues and defects in fiber optic assemblies with submillimeter technology, and make very precise measurements of fiber optic latency and length. As fiber optic networks are increasingly deployed in challenging locations and environments, such as in aerospace, military, and marine applications, this webinar will introduce and demonstrate a new, portable, and rugged OBR.

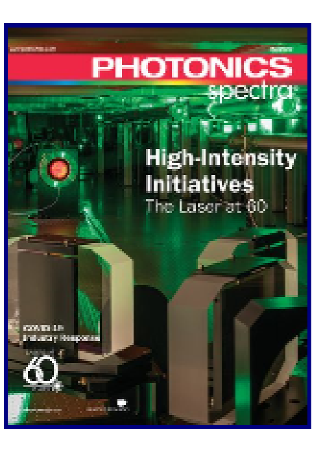
Register Now

Next Issue:

Features
5G Fiber Optics, Non-contact Metrology, Flexible OLED Displays, and more.

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazine *Photonics Spectra*. Please submit an informal 100-word abstract to Susan Petrie, Senior Editor, at Susan.Petrie@Photonics.com, or use our online submission form www.photonics.com/submitfeature.aspx.

About *Photonics Spectra*



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