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PHOTONICS.com

Thursday, March 19, 2015

Light Matters In this edition of the industry's premier weekly newscast: We take a look at three photonics technologies that could help the visually impaired see again, and get an update on the North American market for machine vision. We also see how a group of European musicians are marking the International Year of Light, and check out the newest issue of Photonics Spectra magazine.



Livermore Pushes Beyond Flashlamps to Boost Laser Repetition Rates



Representing a total peak power of 3.2-MW, the arrays are destined to become part of the High-Repetition-Rate Advanced Petawatt Laser System (HAPLS) in 2017. Livermore has been developing the arrays for integration into the European Union's Extreme Light Infrastructure (ELI) Beamlines facility under construction in Prague.

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ESI to Lay Off 45, Close Massachusetts Facility

Electro Scientific Industries Inc. said the move is part of a corporate restructuring meant to save \$4.5 million annually.

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Modulation Scheme Dramatically Increases Capacity, Range of Next-Generation Fibers

Infinera Corp. of California and BICS SA/NV of Belgium recently completed an extended laboratory trial of three PM schemes for transmission over OFS Terawatt large-area/low-loss (LA/LL) optical fiber, which is optimized for terrestrial cables.

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Featured Products

Optical/Illumination Design Software

Zemax LLC

The optical design package is ideal for imaging systems, afocal systems, laser systems, fiber coupling, etc. The illumination package is engineered for radiometric/photometric analysis, stray light analysis and more.

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Refractive Index

M3 Measurement Solutions

M3 provides refractive index testing at wavelengths from 350nm to 14µm. We offer two sample configurations. Curve fitting and dispersion algorithms can be reported upon request.

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Freeform Grinding

Schneider Optical Machines

The SCG 250 provides an ideal platform for freeform, aspherical, and spherical grinding. The unique mechanical design and axis configuration combined with innovative kinematics allow for both cup and peripheral wheel grinding in a single process cycle.

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Optical Prisms

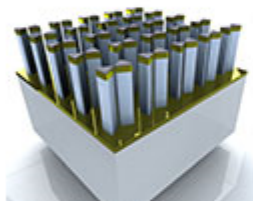
A.R.W. Optical Corp.

ARW Optical Corporation manufactures custom, standard and OEM optical prisms for the UV to IR region. Provides rapid prototyping through volume production for all industries.

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More Articles on Photonics.com

Melody Encoded onto Plasmonic Nanostructure



Researchers from the University of Illinois at Urbana-Champaign recently created the first-ever optically encoded audio recording using a plasmonic nanostructure. Using the device as a "nano piano," they were able to input and then play back the melody of "Twinkle, Twinkle, Little Star."

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Compact Imaging, IPIC to Commercialize OCT Biosensor

"We believe there will be huge demand for MRO sensors in fast-growing markets such as fingerprint device authentication and mobile health monitoring," said Compact Imaging CEO Don Bogue.

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Quantum Imaging, Semiconductor Devices Secure Funding for SWIR Camera Development


The new device is expected to be smaller, lighter, use less power and cost substantially less than existing SWIR cameras, making it applicable in a number of new markets including silicon wafer inspection, commercial aviation, firefighting, agricultural inspection, homeland security and defense.

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WHITE PAPER

Methods for Measuring Flat Panel Display Defects and Mura as Correlated to Human Visual Perception

Radiant Vision Systems, Test and Measurement



Human vision and perception are the ultimate determinants of display quality, however human judgment is variable, making it difficult to define and apply quantitatively in research or production environments. However, traditional methods for automated defect detection do not relate directly to human perception. Accurately correlating human perceptions of defects with the information that can be gathered using imaging colorimeters offers an opportunity for objective and repeatable detection and quantification of such defects.


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Blackbird Robotersysteme Launches Chinese Subsidiary

Blackbird Robotics Asia will be headed by Derek Wang, who has been named vice president for sales and technical support in the region.

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Laser Glasses Aim to Counteract Low Vision



QD Laser Inc. is developing the device in collaboration with the Institute for Nano Quantum Information Electronics at the University of Tokyo, and expects to bring it to market in March of next year.

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Photoelectric Dye May Restore Some Sight to the Blind

Blind patients with hereditary diseases such as retinitis pigmentosa have dead photoreceptor cells, but other neurons involved in sight remain alive and can be stimulated artificially.

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WEBINAR

Micro-Spectroscopy: Enabling Research From Novel Nano-Devices To Clinical Diagnosis

Tuesday, March 24, 2015, 1 p.m. EDT

FREE WEBINAR



Micro-spectroscopy is an ever developing modality for new and exciting research in the areas of nano-technology and bioscience. This webinar will look at modular approaches to microspectroscopy and how it is being applied in a range of research areas such as micro-luminescent and plasmonic studies on nano-structures to its use in studies of live-cell and tissue analysis.

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Industry Events

OFC 2015 - March 22-26, 2015 · Los Angeles Convention Center

Hosted by The Optical Society (OSA), the Optical Fiber Communication Conference and Exhibition this year will cover topics including cloud and data-center networking, high-speed photonic integration for coherent detection, silicon photonics and more.

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THE PULSE OF THE INDUSTRY

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FEATURED VIDEO



Edmund Optics – The Making of an Aspheric Lens

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