

This Week In PHOTONICS

PHOTONICS MEDIA



Top Stories

3D-Printed Photodetectors on Curved Surface Could be Basis for 'Bionic Eye'

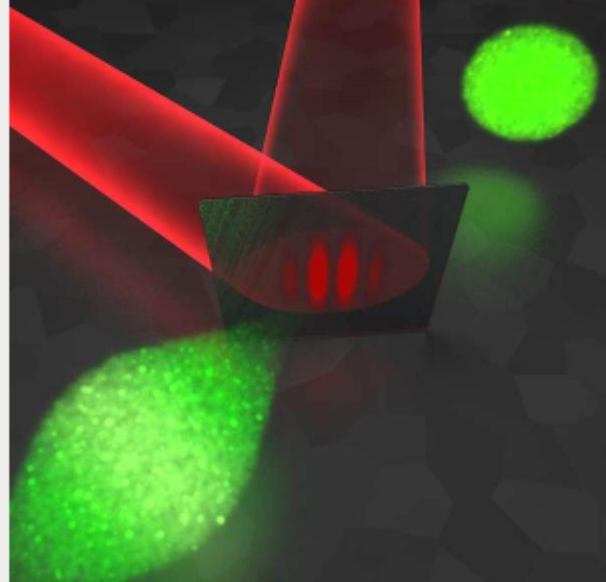
A research team has 3D-printed an array of light receptors on a hemispherical surface, in a first step toward creating a "bionic eye" that could someday help blind people see or sighted people see better.



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Optically Generated Tilted Pulses Can Be Directed Spatially and Temporally

Physicists have demonstrated the ability to spatially and temporally direct and control ultrashort electron pulses by using the light cycles of lasers. The new technique not only shortens pulse duration, but also allows the pulses to be "tilted," that is, allows the pulses to be shaped to run in a direction that is other than vertical to the pulse front.



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Hand-Held Imager Could Broaden Use of AOSLO

Researchers have miniaturized adaptive optics (AO) technology to develop a portable hand-held ophthalmology device that can image individual photoreceptors in the eye at high resolution. The new instrument could allow improved diagnosis of eye diseases to a larger population and enable early detection of brain-related diseases and trauma.



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Featured Products



Industrial Laser Safety at a Glance

Photonics Media
A straightforward guide, offering clear, real world explanations of laser safety elements and the necessary background materials for the industrial laser environment. It raises awareness of the dangers of laser exposure, the proper tools needed to protect oneself from the potential hazards of industrial lasers, and the steps that must be taken to ensure a safe environment for all workers.

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Pulsed UV Light System

Xenon Corporation
Since its introduction in January 2017, XENON's X-1100 High-Intensity, Pulsed Light system has been sold to 50+ research laboratories worldwide! Researchers and scientists spanning The Americas, Europe, Asia, are using this system for numerous markets and in Printed Electronics, Food Safety and semiconductor applications.

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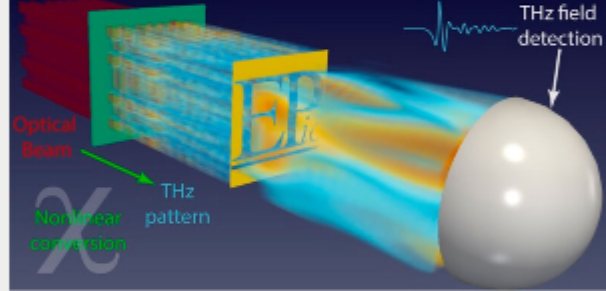
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More News

Time-Resolved Technique Could Provide High Resolution for THz Imaging

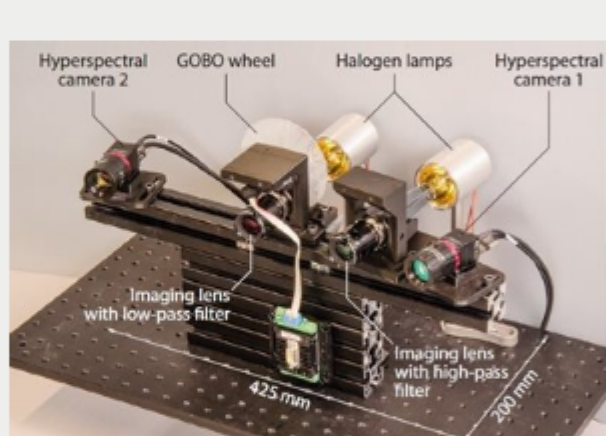
Using a single-pixel camera operating at THz frequencies, researchers have discovered a way to capture with a high degree of accuracy not just the shape of an object, but also its chemical composition. The technique uses time-resolved measurement to reconstruct the complexity of an object.



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5D HSI Measures Shape and Spectral Characteristics as a Function of Time

A 5D hyperspectral imaging system (HSI) — so-called because it captures multiple wavelengths of light plus spatial coordinates as a function of time — has been developed. The compact system operates in the visible-to-NIR spectral range and provides high degrees of spatial and spectral resolution, depth accuracy, and high frame rates.



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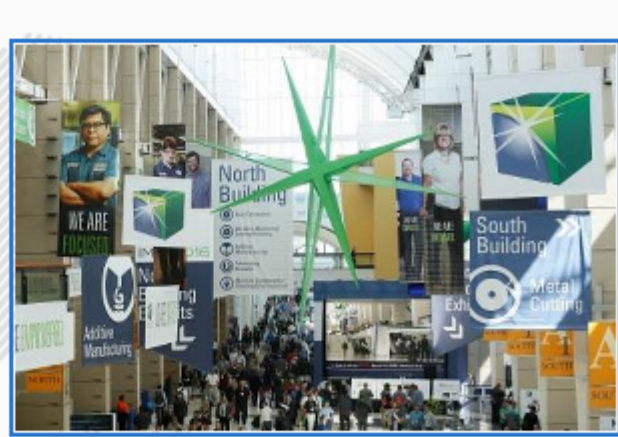


Industry Events

IMTS 2018

September 10-15, 2018 - McCormick Place - Chicago United States
Photonics Media Booth: 236466

At IMTS, the International Manufacturing Technology Show, you will experience the first-hand the manufacturing technologies that will help keep you on the cutting edge of your industry. It's the largest display and demonstration of global manufacturing technology in the western hemisphere, with more than 115,000 industrial decision-makers in attendance. The IMTS Conference program will focus on six topics: Process Innovations, Alternative Manufacturing, Plant Operations, Automation, Quality, and Industry 4.0/IIoT.



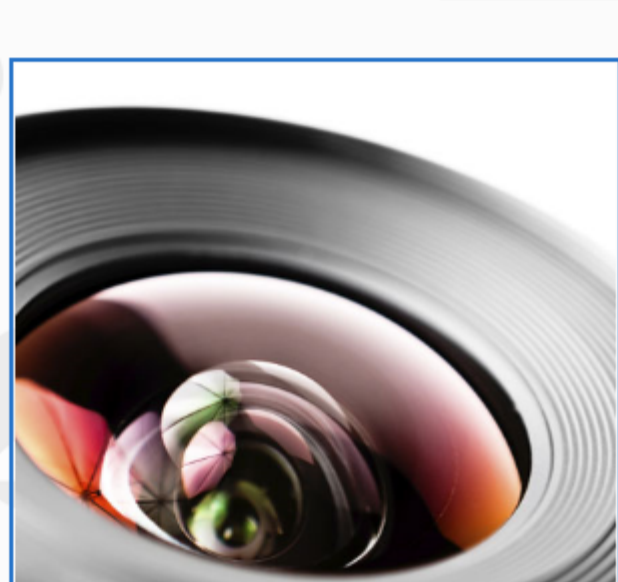
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Webinars

Understanding Camera Resolution

Tue, Sep 18, 2018 1:00 PM - 2:00 PM EDT

In this webinar, you will learn how sensors and lighting affect camera resolution, and how different setups can affect the resulting image. You will also learn a simple formula that will help you calculate the camera resolution you need for your application, and how to use the results of your calculation to achieve the best results under a variety of "real-world" conditions. This webinar is sponsored by Midwest Optical Systems Inc.



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