Thursday, February 6, 2020

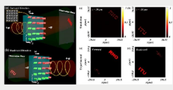
This Week In PHOTONICS

PHOTONICS MEDIA

Top Stories

Meta-Hologram Optical Device Operates in Forward and Backward Directions

A multifunctional meta-hologram design, developed by researchers at Pohang University of Science and Technology, can be used to create different hologram images depending on the direction of the incident light that falls on the device. Conventional meta-holograms can display images when the incident light falls in one direction only.



Read Article

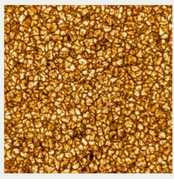
Portable Biosensor Uses Light at Nanoscale to Detect Sepsis in Minutes

Time is critical when diagnosing sepsis, but the tests currently used to identify this disease can take up to 72 hours. Researchers at the Laboratory of Bionanophotonic Systems at École Polytechnique Fédérale de Lausanne have developed an optical biosensor that reduces sepsis diagnosis time from several days to a few minutes.

Read Article

First Images from Inouye Solar Telescope Provide Detailed Look at Sun

The first images from the National Science Foundation's Inouye Solar Telescope show a close-up view of the sun's surface, detailing a pattern of turbulent plasma that covers the entire sun. The telescope can image a region of the sun 38,000 km wide, and the images reveal the smallest features ever seen on the solar surface, some as small as 30 km.



Read Article

Featured Products

LIGHT: Introduction to Optics and Photonics, Second Edition

Photonics Media

Offering a comprehensive treatment of the subject as well as key applications, and employing minimal math, LIGHT: Introduction to Optics and Photonics was written with readers in mind. This textbook is for beginning students of optics and photonics in high school, community college, and university STEM courses.

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New CMOS Sensor Family, Targeted at 3D Laser Triangulation Applications

Teledyne e2v (UK) Ltd.

Teledyne e2v announces its Flash CMOS image sensor family, specifically tailored for 3D laser profiling/displacement applications and high speed, high resolution inspection. The new Flash sensors feature a 6 µm CMOS global shutter pixel which effectively combines high resolution and fast frame rate.

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More News

Photoluminescent Polymer Detects Stress Quickly

A new stress-detecting polymer that shines brighter when stretched could be used to measure the performance of synthetic polymers and track deterioration in materials that are used in engineering and construction. Scientists from the Okinawa Institute of Science and Technology Graduate University integrated copper complexes (copper atoms linked to organic molecules) into the polymer polybutylacrylate.

Read Article

Long-Distance Distribution of Atom-Photon Entanglement at Telecom Wavelength

Physicists at Ludwig Maximilian University, with colleagues at Saarland University, have demonstrated the transport of an entangled state between an atom and a photon via an optical fiber over a distance of up to 20 km. According to the researchers, this is a new record for distance traveled by an atom and a photonic channel in an entangled state.

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New Podcast Series Will Touch on 'All Things Photonics' Read Article

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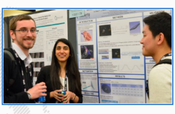
US Department of Energy Will Fund Up to $625M for Quantum Information Centers Read Article

Industry Events

SPIE Medical Imaging 2020

February 15-20, 2020 · Marriott Marquis Houston · Houston

At SPIE Medical Imaging 2020, leading researchers will present the latest information on image processing, physics, computer-aided diagnosis, perception, image-guided procedures, biomedical applications, ultrasound, informatics, radiology, and digital pathology. This year's conference will also focus on emerging technologies like deep learning, artificial intelligence, and machine learning. Over 1000 papers will be presented across nine conferences. A live demonstration workshop will take place on Sun., Feb. 16 and will include all nine conferences.



More Info

Webinars

Machine Vision System Design and Integration: Challenges and Trends

Wed, Feb 19, 2020 12:00 PM – 1:00 PM EST

This webinar will help you develop a plan for your machine vision system that will ensure reliability, repeatability, standardization, and quality on the factory floor. It will discuss traditional versus deep learning systems, and when to use deep learning techniques. You will learn what to focus on when you have limited time to evaluate a system; how and when to choose a system integrator; how to quantify performance during testing; and how to build flexibility and adaptability into your system so it will serve you well for years to come. Sponsored by Teledyne DALSA, Euresys SA, Allied Vision Technologies GmbH, and IDS Imaging Development Systems GmbH.

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