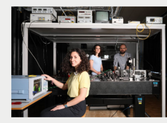
Thursday, April 18, 2019

This Week In PHOTONICS

PHOTONICS MEDIA

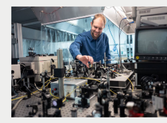
Top Stories

Compact Laser Detects Greenhouse Gases Using Mid-IR Source
A system developed at École Polytechnique Fédérale de Lausanne, composed of a standard laser and a photonic chip, uses a mid-infrared light source to detect greenhouse and other gases. The team took a commercially available fiber laser and combined it with a waveguide chip to reliably generate lightwaves in the MIR spectrum.



Read Article

Spin Lasers Could Transfer Data Faster, Use Less Energy than Conventional Lasers
In a novel approach to data transfer, researchers from Ruhr-Universität Bochum used a semiconductor spin laser to enable room-temperature modulation frequencies above 200 GHz. According to the researchers, this frequency level is nearly an order of magnitude faster than the best conventional semiconductor lasers.



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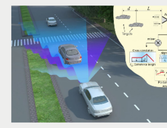
Object Detection System Separates Range Resolution from Bandwidth Limitations
A new Tel Aviv University study investigates an approach to object detection, inspired by OCT, that requires little to no bandwidth to accurately create a high-resolution map of the environment that is within range of a radar system.



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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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Ultima 2Pplus Multiphoton Imaging

Bruker Nano Surfaces
With new advances in field of view, sensitivity, wavelength, and sample accommodation, Bruker's Ultima 2Pplus delivers the best commercially available combination of flexibility, resolution, imaging depth, and speed, allowing users to perform simultaneous imaging, stimulation, and electrophysiology protocols with greater efficiency and effectivity.

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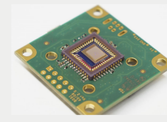
More News

Single-Shot Spectrometer Offers Portability, High Resolution
Engineers at the University of Wisconsin-Madison have developed a compact, single-shot, free-space-coupled spectrometer with hyperspectral imaging capabilities that can be integrated with a cellphone. The spectrometer is fabricated on top of and integrated with a CMOS chip.



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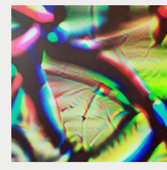
Adversarial Learning Techniques to Test Image Detection Systems
Engineers at Southwest Research Institute are finding and documenting vulnerabilities in machine learning algorithms that can make objects "invisible" to image detection systems that use deep learning. To mitigate the risk for compromise in automated image processing systems, the researchers developed adversarial learning patterns for testing the systems.



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Doctors Could Soon Use Light Therapy to Eradicate MRSA Read Article

AIM Photonics Summer Academy 2019 Will Immerse Attendees in Latest IP Technology Read Article

Metamaterials Embedded with Geometrical Optics Could Simplify Optical Devices Read Article

Event Horizon Telescope Captures First Image of a Black Hole Read Article

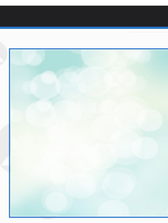
Industry Events

SID Display Week 2019
May 12-17, 2019 - San Jose McEnery Convention Center - San Jose United States
SID Display Week, now in its 56th year, is where the world's next-generation electronic display creators, technologists, value-add suppliers, and market-making end-users gather to stay connected, stay current, and get ahead. SID Display Week 2019 will offer special sessions in the emerging areas of Augmented Reality, Virtual Reality, and Mixed Reality. Exhibitors' major product categories will include backlights, coatings and films, displays, input interfaces, system integration, test and measurement, as well as software, equipment and systems, and parts and components.

More Info

Webinars

Quantum Dots Are Making Displays Brighter and Photomedicine Better
Tue, Apr 23, 2019 1:00 PM - 2:00 PM EDT
In this webinar you will learn about the properties that make quantum dots (QDs) so desirable in displays, and the types of QD technologies that are most suitable for displays. It will cover strategies for implementing QDs in displays, challenges facing this technology, and QD-enabled displays in the future. The use of electroluminescent (EL)-QD devices in photomedicine will also be discussed. This webinar is sponsored by Radiant Vision Systems.



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