Thursday, February 16, 2017

This Week In PHOTONICS

PHOTONICS MEDIA

Top Stories

Augmented Reality, Virtual Sensors Enhance Physical Security Training

Experts on physical security at Sandia National Laboratory are applying technology and methods of the video game industry to real-world national security problems. Using pre-release stand-alone augmented reality headsets, computer scientists have recently adapted augmented reality to enhance physical security training and analysis.

Read Article

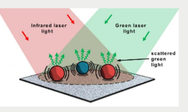
Holographic Atomic Memory Produces Photons On Demand

A device that is able to generate single photons on demand in groups of several dozen or more could help scientists overcome one of the fundamental obstacles facing the construction of quantum computers. Physicists from the Faculty of Physics at the University of Warsaw (UW) have invented holographic atomic memory.

Read Article

Spectroscopy Technique Could Be Way to Detect Chemicals in Minuscule Amounts

A microscope that can chemically identify µm-sized particles could one day be used in airports and other high-security venues to rapidly screen people for microscopic amounts of potentially dangerous materials. The technique, which was developed by researchers at the Massachusetts Institute of Technology's Lincoln Laboratory, uses photothermal modulation of Mie scattering (PMMS) to enable concurrent spatial and spectral discrimination of individual µm-sized particles, and uses an imaging configuration to detect multiple species of particles.



Read Article

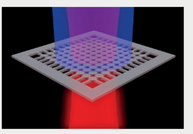
Quantum Cloning Machine Reveals Clues That Could Protect Against Hacking

Universal optimal quantum cloning of high-dimensional photonic states has been achieved using the symmetrization method. The work has led to the discovery of information that could help system administrators protect quantum computing networks from external attacks.

Read Article

Novel BIC Laser Holds Promise for Optical Communications

Researchers at the University of California San Diego have developed a laser based on an unconventional wave physics phenomenon known as bound states in the continuum — BIC. The new BIC lasers have the potential to be developed as high-power lasers for industrial and defense applications. The technology could also revolutionize the development of surface lasers for communications and computing applications.



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Opto Engineering, Matrix Vision Partner for Machine Vision Collaboration Read Article

Featured Products

InGaAs Photodiodes

Fermionics Opto-Technology

Fermionics Opto-Technology manufactures InGaAs photodiodes for data, voice, and video communications, large-area photodiodes for instrumentation and sensing applications, optical receivers to 2 Gb/s, and linear and digital arrays.

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sCMOS Newcomer pco.panda; Compact Design, Extended Performance

PCO-TECH Inc.

Despite ultra-compact measurements of roughly 65 x 65 x 65 mm with only 450 g weight, the new 16-bit sCMOS camera "pco.panda" provides high quantum efficiency up to 80 % and more than 40 fps at a full resolution.

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Industry Events

Laser Additive Manufacturing workshop (LAM®)

February 21-22, 2017 - Hilton Houston North - Houston United States

This year, LAM will have presentations on the latest from researchers and industry presenters on when, where, and how to use laser additive manufacturing. Attendees will learn about all aspects of additive manufacturing, from design, materials, modeling and manufacturing to applications. A new session on micro/nano laser additive manufacturing will cover the latest research in this increasingly popular area of laser manufacturing.

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