

# This Week In PHOTONICS

PHOTONICS MEDIA



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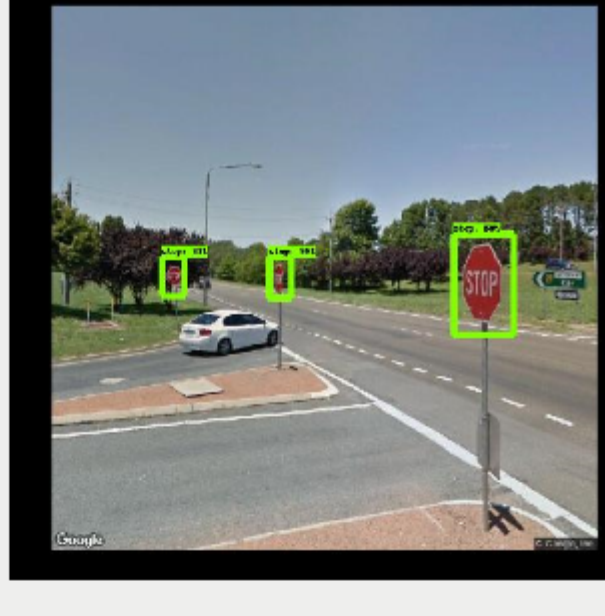


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## Top Stories

### Machine Learning-Based System Automates Street Sign Detection and Classification

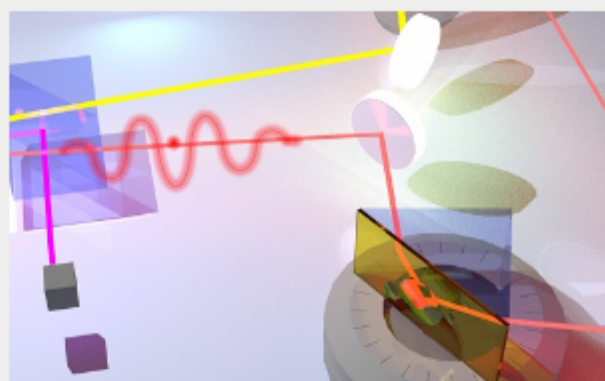
Geospatial scientists at RMIT University have used deep learning to produce an autonomous system for detecting traffic signs on Google Street View images. The system could allow local governments and traffic managers to monitor street signs and identify those in need of replacement or repair.



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### Squeezed Light Reduces Noise, Could Speed Quantum Sensing

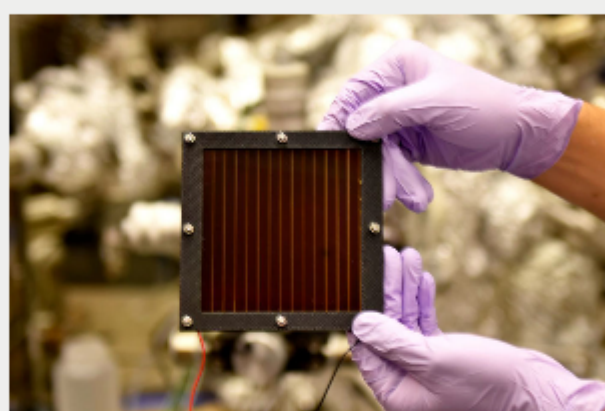
Oak Ridge National Laboratory physicists studying quantum sensing, which could affect a range of potential applications from airport security scanning to gravitational wave measurements, said that certain quantum sensors can use a squeezed state of light to reduce statistical noise that occurs in ordinary light.



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### 'Self-Healing' Coating Minimizes Lead Leakage from Perovskite Cells

Adding a protective layer of epoxy resin to the top of a perovskite solar cell (PSC) can significantly reduce the amount of lead that the cell discharges into the environment, researchers at Okinawa Institute of Science and Technology (OIST) discovered.



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## Featured Products



### 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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### Back Illuminated sCMOS by PCO

**PCO-TECH Inc.**  
Unique technology comes from evolution, combining existing and new technology. When PCO's tried

and trusted sCMOS cameras pool forces with modern back illuminated (bi) sensor technology, pco.edge 4.2 bi and pco.panda 4.2 bi come with their nearly perfect quantum...

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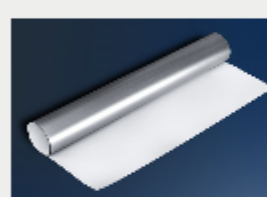
### GenICam-Compliant Camera Functions

**IDS Imaging Development Systems GmbH**

IDS NXT cameras allow users not only to create and load individual image processing tasks, but also to

make them available to any GenICam-compliant application, such as HALCON.

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### Flexible Sputtered Coatings

**Deposition Sciences Inc. (DSI)**

Roll-to-roll processes present a number of challenges when coating flexible surfaces, including unbalanced stress on each side of the substrate and limited line speed. These limitations affect the thickness and possibility of complex coatings. To address these challenges, Deposition Sciences, Inc. (DSI) developed their batch coating technology, MicroDyn®.

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## More News

### Nonlinear Optical Process Could Improve Solar-Powered Desalination

Researchers at Rice University have improved the efficiency of their solar-powered desalination system by more than 50% by concentrating sunlight into "hot spots." Using the same amount of light, the researchers were able to increase the rate of purified water production by redistributing direct sunlight intensity.



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### Tiny Light Box Made of TMDC Material Merges States of Light, Matter

A nanosize light box, built from stacked atomically thin material, has demonstrated the ability to capture and amplify light and link light to matter at the nanolevel. The light box, created by researchers at Chalmers University of Technology, makes the alternation between light and matter take place so rapidly that it becomes impossible to distinguish between the two states.



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## More Headlines

[Luminate NY Calling for 2020 Competition Applicants](#) [Read Article](#)

[SPIE to Acquire Photonex, UK's Optics and Photonics Exhibition](#) [Read Article](#)

[Elbit Systems Awarded \\$73M German Air Force Contract](#) [Read Article](#)

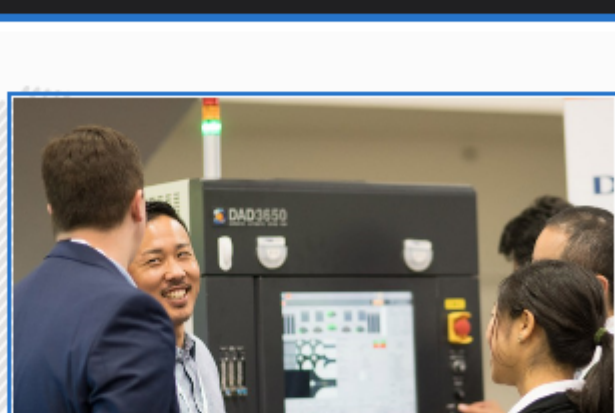
[Precision Optical Recognized as Small Business Supplier](#) [Read Article](#)

[Palomar Technologies Invests \\$1M in EPIC Partnership Agreement](#) [Read Article](#)

## Industry Events

### SEMICON West 2019

July 9-11, 2019 - Moscone Center - San Francisco United States  
SEMICON West 2019 will offer more than 80 hours of technical and business programming, plus hundreds of exhibitors whose products and services can help you manage today's disruptive landscape. From materials, equipment, design, manufacturing, system integration, and demand channels to Flexible Hybrid Electronics and MEMS & Sensors, you will have the opportunity to learn about the best in the business and see what's next. Business and technology leaders, researchers, and industry analysts from across the microelectronics supply chain will benefit from attending SEMICON West.



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## Webinars

### Keys to Success with Vision-Guided Robotics

Tue, Jul 16, 2019 1:00 PM - 2:00 PM EDT

Industry leader David Deconvol will present practical methods to successfully integrate conventional vision-guided robotic (VGR) applications into machine vision systems. He will discuss some cutting-edge VGR applications, the challenges they present, and the potential advantages they offer. He will provide examples of the products that are being used successfully in VGR, including robots, cameras, and software and will conclude with a discussion of machine vision technologies that could be key to expanding the future use of VGR. This webinar is sponsored by Photoneo; Teledyne DALSA; and Integro Technologies Corp.



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