

# This Week In PHOTONICS

PHOTONICS MEDIA



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## Top Stories

### Shubham Chandel Awarded 2019 Teddi C. Laurin Scholarship

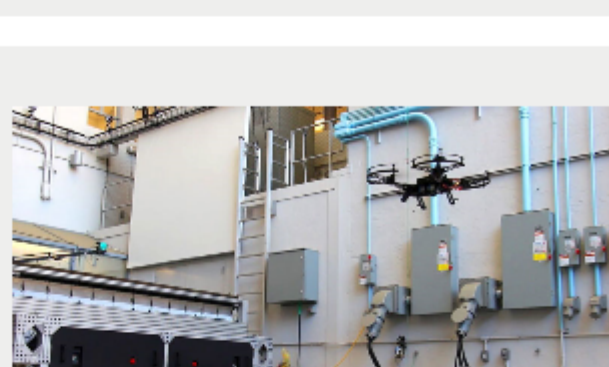
Shubham Chandel, a Ph.D. candidate studying biomedical optics at the Indian Institute of Science Education and Research Kolkata in West Bengal, India, has been named the recipient of this year's Teddi C. Laurin Scholarship.



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### Deep Neural Network Guides Drone to Smooth Landing

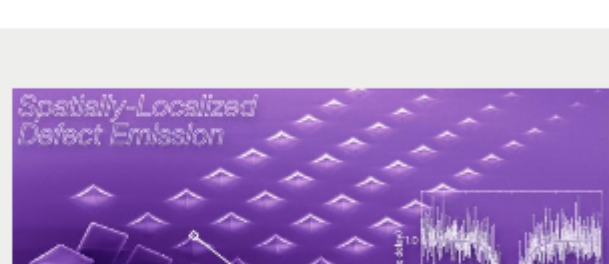
Researchers at the California Institute of Technology have collaborated on a system that uses a deep neural network to help autonomous drones "learn" how to land more safely and quickly, while consuming less power.



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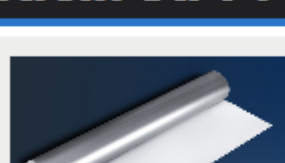
### Thin Films Could Support Single-Photon Emission for Quantum Computing

Efforts to create reliable light-based quantum computing and quantum key distribution for cybersecurity could benefit from a Los Alamos National Laboratory study that demonstrates a new method for creating thin films to control single-photon emission.



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## Featured Products



### 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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### 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 into the world of science. Both cameras stand out 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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## More News

### AI-Driven Imaging System Protects Photo and Video Authenticity End-to-End

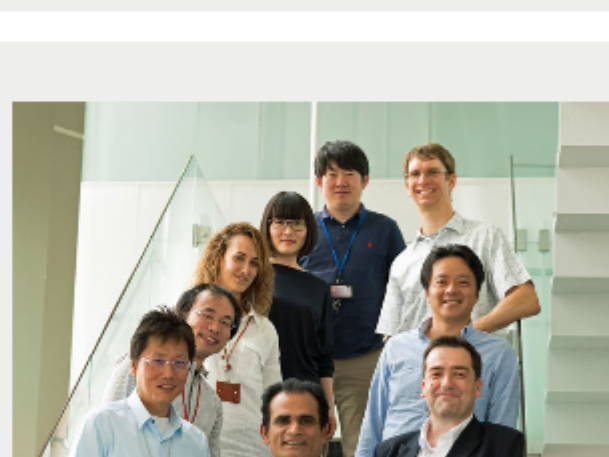
To thwart sophisticated methods of altering photos and video, researchers at the New York University Tandon School of Engineering have developed an experimental technique to authenticate images throughout the entire pipeline, from acquisition to delivery, using artificial intelligence.



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### Organic Laser Diode Suppresses Losses, Lowers Electricity Requirements

Lasing by direct electrical stimulation of an organic film is possible, according to researchers at Kyushu University, who have demonstrated a laser diode based on organic semiconductors. The researchers used a highly efficient organic light-emitting material which has a relatively low resistance to electricity and a low amount of losses.



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## More Headlines

**Mid-Infrared Upconversion Imaging Could Speed Medical Diagnostics** [Read Article](#)

**TriEye Secures \$17M to Bring HD SWIR Cameras to Auto Market** [Read Article](#)

**Using Light to Produce Electricity Where Saltwater and Freshwater Meet** [Read Article](#)

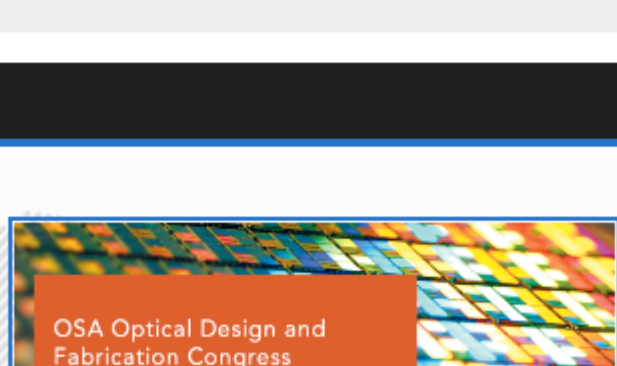
**Intelrad Commits \$75M to Advance New AI- and Cloud-Based Medical Imaging Software** [Read Article](#)

**Aurora to Acquire Lidar Company Blackmore** [Read Article](#)

## Industry Events

### OSA Optical Design & Fabrication 2019

June 10-12, 2019 - OSA Headquarters - Washington United States  
New materials and unprecedented capabilities to create and measure precise aspheric and freeform optical surfaces have created a whole new design space for imaging, while new computational tools have allowed more complex systems to be both designed and fabricated. These capabilities have extended to micro-optics, head-mounted displays, and large optical systems. The 2019 OSA Optical Design and Fabrication Congress will address these issues in detail with two related topical meetings that address optical fabrication and testing and freeform optics. The Congress will bring scientists, engineers, and designers together so they can interact and learn in both informal and formal settings.



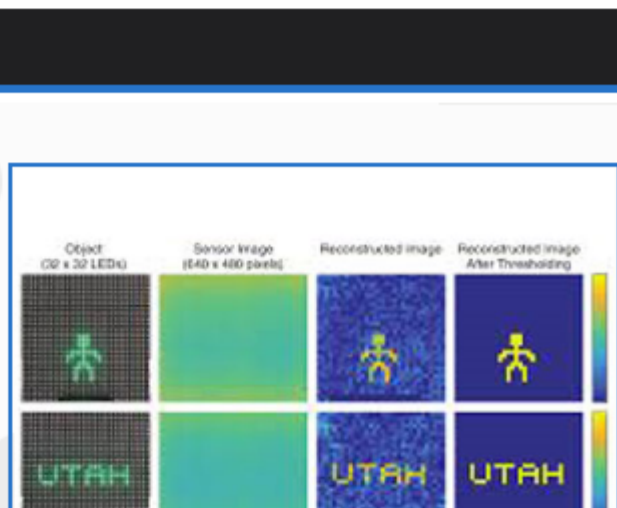
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## Webinars

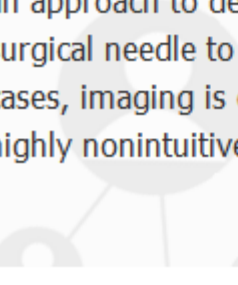
### From Lensless Cameras to Deep-Brain Microscopy: Exploring the Potential of Computational Imaging

Tue, Jun 11, 2019 1:00 PM - 2:00 PM EDT

This webinar will introduce you to the enormous potential of computational imaging for a range of industries, from manufacturing to machine vision to biophotonics. Professor Rajesh Menon and his group from the University of Utah will discuss several examples of computational imaging, including a "see-through" camera, comprised of the edge of the window; a snapshot hyperspectral placed camera; and an approach to deep-brain imaging that utilizes only an ultrathin surgical needle to transport light in and out of a mouse brain. In all cases, imaging is essentially a form of information transfer enabling highly nonintuitive forms of imaging.



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