



Quarterly newsletter from Photonics Media featuring the latest advancements in and applications for vision systems – from sensors to software. Manage your Photonics Media membership at [Photonics.com/subscribe](https://www.photonics.com/subscribe).



Anomaly Detection Expands Use of AI in Defect Inspections

The manufacturing industry is being turned on its head as AI and deep learning transform the way goods are manufactured and inspected. The combination of software, new deep learning techniques, the power of parallel processing, and easy-to-use tools is at the core of this transformation.

[Read Article](#)



Calculating Lens Resolution with Precision

There are many different ways to judge the performance of a lens, depending on the application: weight, size, distortion, transmission, and resolution. Of these characteristics, resolution is often the primary cost driver for lenses, with higher-resolution lenses tending to cost more than lower-resolution ones.

[Read Article](#)



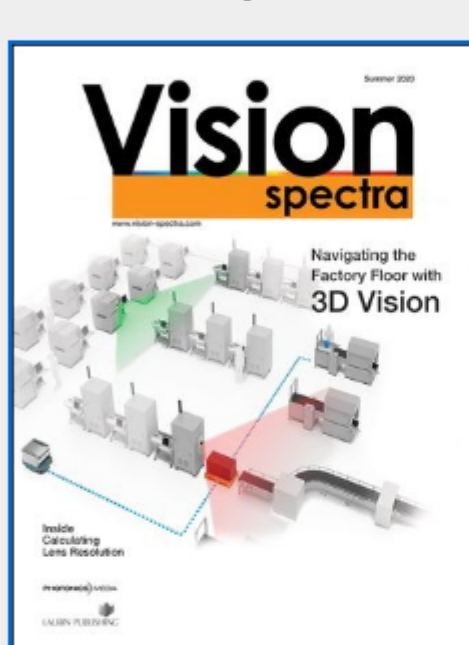
Robot-Based Bin Picking Set to Transform Manufacturing Sector

As the Fourth Industrial Revolution nears, companies all over the world will need to prepare for the immense changes coming their way. Machine vision, used in combination with artificial intelligence and deep learning, strives to make manufacturing systems more productive than ever. This is resulting in a greater focus toward robot-based bin picking. High-level collision detection and path planning allow robots to move independently without any human intervention. High-quality structured light projection creates a detailed 3D map of points so that the system can accurately identify the location and orientation of the parts in the bin.

[Read Article](#)



About Vision Spectra

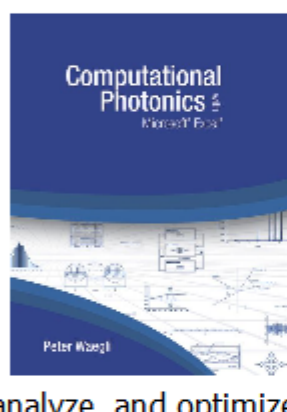


Vision Spectra is a global resource geared for the vision community, with real-world case studies of vision in action, comprehensive feature articles, and columns from experts in the field examining the trends that enable Industry 4.0.

Visit [Photonics.com/subscribe](https://www.photonics.com/subscribe) to manage your Photonics Media membership.

[View Digital Edition](#) [Manage Membership](#)

:: Featured Products



Computational Photonics with Microsoft® Excel®

Photonics Media
This book shows how Excel — readily available on almost every computer — can be used to study photonics problems and to design, analyze, and optimize photonics applications. Excel comes with all the necessary ingredients: a full range of mathematical functions, excellent graphics..

[Visit Website](#)

[Request Info](#)



Alluxa Ultra Series Filters and Coatings

Alluxa
Alluxa Ultra Series Filters, including Narrowband, Dichroic, UV, IR, and Notch filters, provide the highest performance optical thin film solutions available today. For example, the Ultra Series Flat Top Narrowband Filters offer the narrowest bandwidths and squarest filter profiles in the industry.

[Visit Website](#)

[Request Info](#)

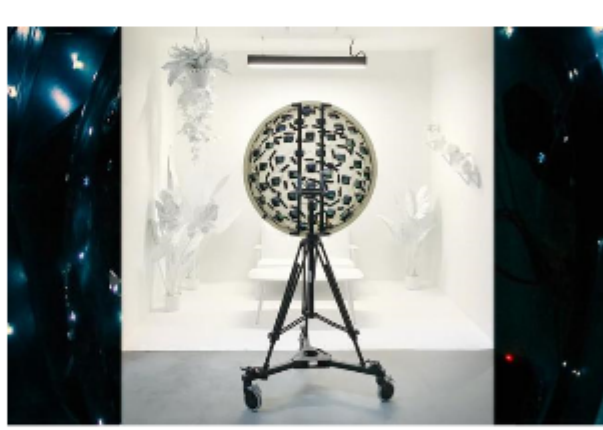


:: More Vision News

Google to Present End-to-End System for Immersive Light Field Video

Google will demonstrate a system for capturing, reconstructing, compressing, and rendering high-quality immersive light field video, at bandwidths low enough to be streamed over regular Wi-Fi, at the SIGGRAPH 2020 virtual conference. In the new system, wide field-of-view scenes can be recorded and played back with the ability to move around within the video after it has been captured.

[Read Article](#)



Self-Driving Cars That Recognize Free Space Can Better Detect Objects

Self-driving vehicles use 3D data from lidar to represent objects as a point cloud and then try to match those point clouds to a library of 3D representations of objects. The problem with that, according to Peiyin Hu, a Ph.D. student in CMU's Robotics Institute, is that the 3D data from the vehicle's lidar isn't exactly 3D — the sensor can't see the occluded parts of an object, and current algorithms don't reason about such occlusions.

[Read Article](#)

Pentagon Adopts FLIR EST Screening System to Stop Spread of COVID-19

FLIR has announced that it has installed its EST screening system at the Pentagon Visitor Center. The company's integrated EST screening system, the A700 EST-IS, features the FLIR A700 thermal imaging camera. The system is being used to screen visitors for elevated or higher than expected skin temperatures, which can help guard against the spread of COVID-19.

[Read Article](#)



:: Upcoming Webinars



Embedded Vision: An Overview

Thu, Jul 23, 2020 1:00 PM - 2:00 PM EDT

Embedded vision is an emerging and growing technology with use cases developing across many fields, from medical imaging to autonomous vehicles. In this webinar, industry expert David Dechow will define embedded vision and the technologies involved, the basic implementation challenges and techniques, and the impact that embedded vision will have on familiar markets, including, in particular, machine vision in automation applications. The webinar will feature examples and case studies and include a question-and-answer session.

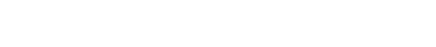
[Register Now](#)

:: Next Issue:

Features

Deep Learning, hyperspectral imaging to detect forgeries, medical device inspection, and more.

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazine *Vision Spectra*. Please submit an informal 100-word abstract to visionspectra@photonics.com, or use our online submission form www.photonics.com/submitfeature.aspx.



We respect your time and privacy. You are receiving this email because you are a Photonics Media subscriber, and/or a member of our website, Photonics.com. You may use the links below to manage your subscriptions or contact us.

Questions: info@photonics.com

[Unsubscribe](#) | [Subscribe](#) | [Subscriptions](#) | [Privacy Policy](#) | [Terms and Conditions of Use](#)

Photonics Media, 100 West St., PO Box 4949, Pittsfield, MA 01202-4949

© 1996 - 2020 Laurin Publishing. All rights reserved. Photonics.com is Registered with the U.S. Patent & Trademark Office. Reproduction in whole or in part without permission is prohibited.