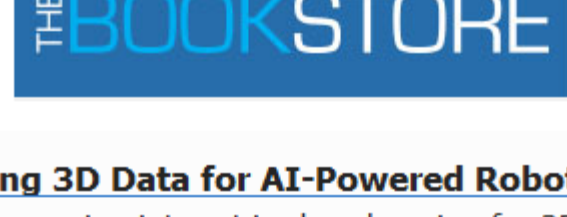




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Analyzing 3D Data for AI-Powered Robotic Automation

There's increasing interest in deep learning for 2D images, from facial recognition to manufacturing, spurred by the promise of the IIoT. And today, a growing faction believes employing relatively inexpensive cameras to capture 2D images and then performing deep learning is the secret to a quality assurance. While there's some truth to that assumption, relying on data to make decisions is not so straightforward in real life.



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Gap and Flush System a Good Fit for Chrysler Assembly Plant

For today's automotive manufacturers, aesthetics is a primary concern. That's why the Fiat Chrysler Automobile (FCA US) Brampton Assembly plant in Ontario, Canada, installed a new Cognex Corp. gap and flush inspection system. The system measures and inspects fit and alignment between two surfaces.



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Vision Spectra - Autumn 2019



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.

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Featured Products



High Performance Filters for Machine Vision

Chroma Technology Corp.
ContrastMax filters from Chroma feature sputtered interference coatings engineered for automated vision applications like machine vision and robotic guidance. These optical filters offer superior levels of contrast and blocking of unwanted light, while also performing well at wide viewing angles.

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IDS: More than 100 new USB3 Vision cameras!

IDS Imaging Development Systems GmbH
IDS Imaging Development Systems is expanding its USB3 Vision camera range by more than 100 models in the coming weeks. The company integrates the entire range of Sony sensors which are already available with GigE Vision interface. The USB3 Vision cameras will be available both as CP and SE family variants. For the latter, customers can choose between housing or board level versions with different lens holder options, which makes them suitable for a wide range of applications. Please visit the IDS webstore to see all available cameras at a glance.

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New Compact Fanless Coaxlink CoXP-12 Frame Grabbers

Euresys SA
Euresys is proud to announce that they are expanding their CoXP-12 frame grabber range with the addition of the Coaxlink Mono CoXP-12 and Duo CoXP-12. These are one- and two-connection CoaXPRESS 2.0 frame grabbers complementing the four-connection Coaxlink Quad CoXP-12, already available.

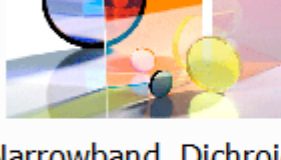
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Ultra-Small High Speed Streaming Camera

AOS Technologies AG
If size or price are important, the AOS U Camera series is a perfect fit. The tiny USB 3.0-based high speed streaming camera offers superior performance: 1280 x 1024 pixel at up to 200 fps or 1920 x 1080 at 170 fps, and up to 5800 fps at reduced resolution. This small camera will exceed all expectations.

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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.

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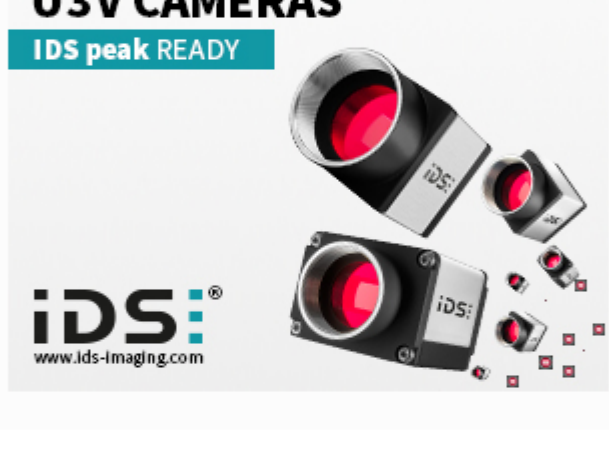


Discover the Alvim Camera Series!

Allied Vision Technologies GmbH
Industrial machine vision and embedded vision merge with Allied Vision's innovative camera platform, the Alvim Camera Series. Alvim is based on an innovative platform that delivers a full range of digital cameras capable of serving both industrial and embedded vision applications.

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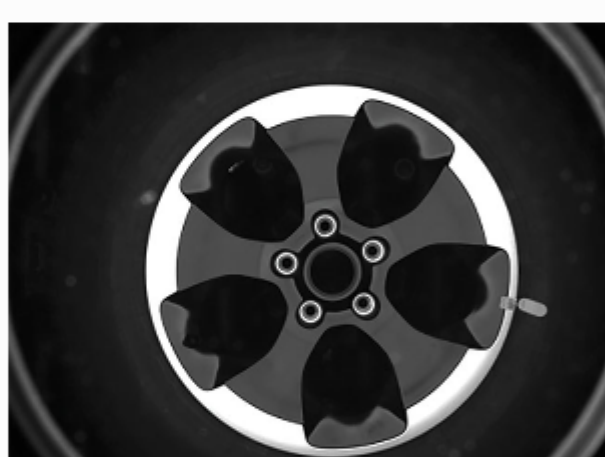
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More Vision News

Wheel and Tire Validation System Offers Quick Inspection

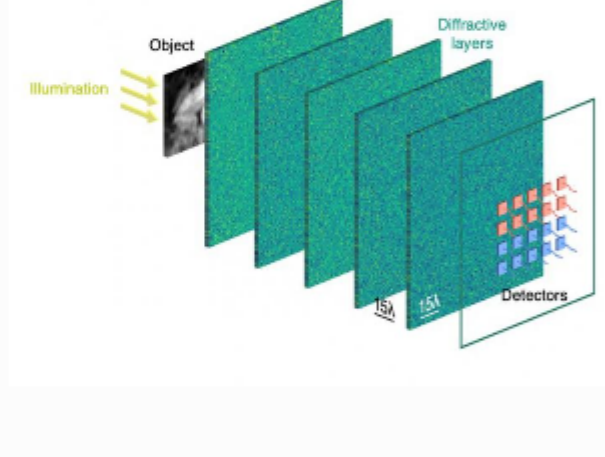
Oakley Industries, a just-in-time supplier of tire and wheel assemblies based in Flint, Mich., recently installed the LEONI Wheel & Tire Validation System in two of its plants. The system applies a multitude of complex inspections for quality and identification verification to validate each assembly in as little as 1 to 2 seconds, while delivering a 99.7% inspection accuracy rate.



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Differential Detection Improves Accuracy in Diffractive Optical Neural Networks

Improvements to an optical neural network being designed at the University of California, Los Angeles (UCLA) take advantage of the parallelization and scalability of optical-based computational systems. The system uses a series of 3D-printed layers with uneven surfaces that transmit or reflect incoming light.



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Optical Lace Could Give Robots Higher Tactile Capabilities

Optical lace — lacings of stretchable optical fibers distributed throughout 3D-printed elastomer frameworks — could be used to create a kind of artificial skin for robots. The system would enable soft robots to sense how they interact with their environment and adjust their motions accordingly.



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AI-Based Portable App Could Help Growers Prevent Production Losses

Deep convolutional neural networks (DCNNs) and transfer learning are being applied to just-in-time crop disease detection, through a smartphone tool that scans banana plants for signs of disease and pests. The tool is built into an app called Tumaini, which means "hope" in Swahili.



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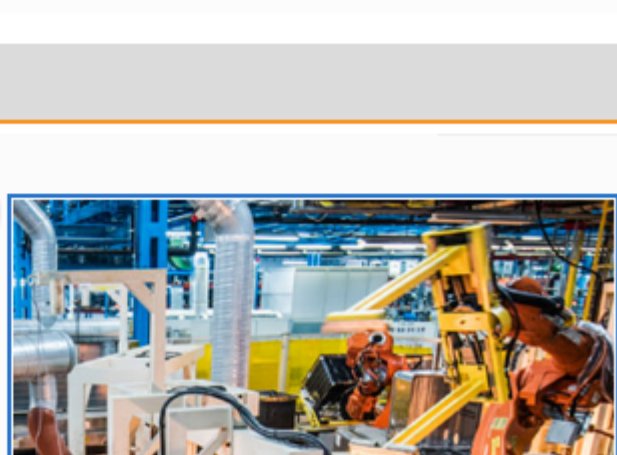
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Webinars

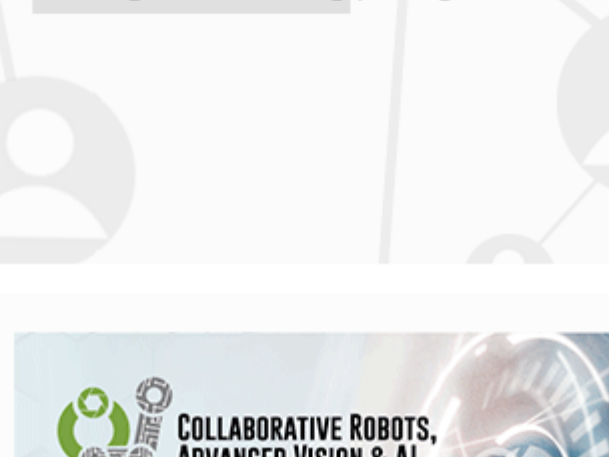
3D Imaging for Factory and Logistics Automation

Wed, Nov 13, 2019 10:00 AM - 11:00 AM EST
In this webinar you will learn how 3D imaging of conveyed objects can aid in quality inspection and logistics automation. The presenter, a senior expert in 3D vision at SICK IVP, will discuss triangulation and time-of-flight systems for 3D imaging. The focus will be on imaging technologies that will enable you to obtain the data you need to efficiently implement a range of applications, from inspecting small electronics to sizing and localizing packages in a distribution center.



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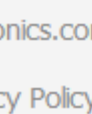
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