Tuesday, June 27, 2017

INDUSTRIAL PHOTONICS VISION

A quarterly newsletter featuring the latest advancements in and applications for industrial vision systems - from sensors to software.

Industrial Vision News

CMOS, TDI in Line Scan Cameras Deliver More Accurate Web Inspection Systems

Materials manufactured in a continuous roll or sheet are most effectively inspected using machine vision line scan systems. In addition to the unlimited pixels enabled by continuous motion, line scan imaging delivers crisp, smear-free images at high speeds, with higher dynamic range, greater processing efficiency and a much lower cost per pixel than traditional area scan systems.

Read Article

How to Select the Right Scan System for Your Application

Choosing the right scanner system for individual applications involves finding the compromise between power handling, speed and precision that will best meet your specific needs. Asking the right questions inspired by daily practice is critical to choosing the best-suited scanner aperture, the perfect position detector technology and the best control algorithm.

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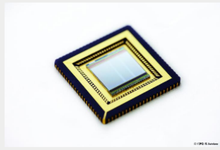
Graphene-CMOS High-Res Sensor Can Image Visible and IR Light at the Same Time

Graphene instead of silicon has been used for a CMOS integrated circuit, resulting in a high-resolution image sensor consisting of hundreds of thousands of photodetectors based on graphene and quantum dots (QDs). This graphene-QD CMOS sensor can be operated as a digital camera that is highly sensitive to light in the UV, visible and IR wavelengths (300 to 2000 nm). The sensor could enable a wide range of optoelectronic applications, such as low-power optical data communications and compact and ultra-sensitive sensing systems.



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NASA Investigates Optical Coatings for Far-UV Spectral Range

To meet the projected goals for its next generation of space telescopes, NASA is taking on a new optical challenge — the fabrication of protective coatings for mirrors to be used for astrophysics studies in the Lyman Alpha range. So far, no one has developed a coating that effectively protects and maintains an aluminum mirror's high reflectivity in the 90- to 130-nm range. At this spectral regime, scientists can observe an assortment of spectral lines and astronomical targets.

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Images Alone Form a Dynamic 3D City Model

"VarCity," a technology platform that can create 3D city models using image data alone, can evaluate and automatically combine images from all types of sources, including aerial photography, panoramic images taken with special vehicles, and photos published on social networks and internet platforms. It can also use video material, such as from public webcams.

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VTT Project Develops Solar Energy Production Concept

The COMBO-CFB project led by VTT Technical Research Centre of Finland Ltd. has developed an innovative concept to increase solar energy production in the energy system. According to its research, the concept can reduce fuel consumption and emissions stressing the climate by more than 33 percent.

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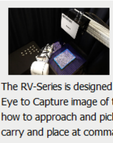
Featured Products



Canon 3D Machine Vision for Random Parts Picking

Canon U.S.A. Inc., Industrial Products Div.

The RV-Series is designed to work with Robotic arm systems as an Eye to Capture image of target parts and let robotic system know how to approach and pick up by most reliable position to safely carry and place at commanded position.

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