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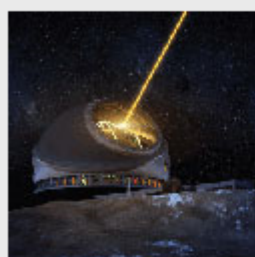
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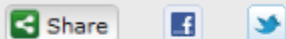
November 2014

Breaking Ground Now: Next-Gen Giant Telescopes



The largest telescope on Earth is currently the Gran Telescopio Canarias in the Canary Islands of Spain, which was built in 2009 with an aperture of 10.4 m. This 10-m design will hold the record for another four to eight years, but a new crop of next-generation telescopes now under construction will make a technological leap in instrumentation and size – some to 30 and 40 m. And that will change everything.

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PMD Camera Enhances 3-D Imaging

A CMOS-architecture imaging array where each pixel is a photonic mixer device can help capture 3-D images. Among the several techniques that use light for measuring depth, two bear relevance to this article.

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'Internet of Lights' Meets Industrial Internet of Things



Networks of smarter lights connected to sensors, actuators and other devices will create a new world of opportunities.

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MWIR for Remote Sniffing and Locating of Gases



High-resolution mid-wave cameras can visualize methane gas clouds, enabling indirect detection outside of the danger zone.

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Understanding Passively Q-Switched Solid-State Lasers

The operation of Q-switched lasers can be quantitatively understood – with huge benefits for laser design. In the September issue, we covered the operation and design of actively Q-switched lasers; this second part covers passively Q-switched lasers.

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Microbolometers Move thermal Imaging into Next-Gen Commercial Uses



Recent developments in uncooled microbolometer-based detectors could signal that the technology is ripe for commercial use.

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Ultra-High Resolution High-Rate Spectrometer RESOLUTION

Spectra Systems
The ZOOM Spectra spectrometer is a unique tool for the fine characterization of LASER in VIS-NIR (ECDL, VCSEL, DFB, YAG).

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Vacuum Cooling CCD

Raptor Photonics Ltd.
Raptor Photonics, a global leader in the design and manufacture of high performance digital cameras has launched the Eagle V, a "best in class" deep cooled vacuum based CCD using Raptor's revolutionary vacuum technology PentaVac™.

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QCL Controller

ILX Lightwave Corp.
A new quantum cascade laser controller by ILX Lightwave Corp. combines a precision current source with an integrated 128-W thermoelectric temperature controller.

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Galvanometer Drivers

SCANLAB AG
New galvanometer drivers from Scanlab AG have lower inertia for precision laser positioning.

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