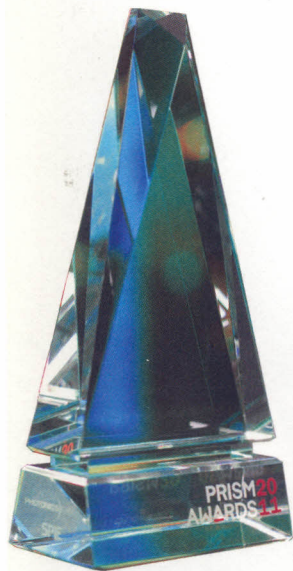


Multispectral Imaging Explores Harsh Environments



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by Michael B. Woods, SLAC National Accelerator Laboratory

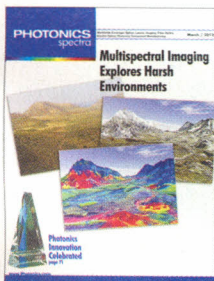
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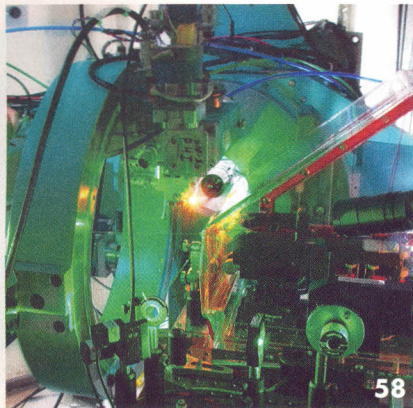
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THE COVER

The many ways remote sensors are used to explore the most forbidding areas on the planet inspired this month's cover art. Article by Lynn Savage on page 50. Design by Senior Art Director Lisa N. Comstock.

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by Lynn Savage, Features Editor

By gathering data on environments that are dangerous for humans, remote sensing helps determine the health of the ecosystem.

58 | ULTRAFAST FIBER LASERS ENABLE UNIQUE MATERIALS RESEARCH

by Dr. Tony Lin, Calmar Laser Inc.

The robust architecture and low maintenance of fiber-based architectures, along with extraordinary performance parameters, are enabling innovative laboratory research.

61 | LASERS CHANGE THE SHAPE OF THE PHOTOVOLTAICS INDUSTRY

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64 | NEXT-GENERATION CMOS REDEFINES TRADE-OFFS FOR INSPECTION

by Behnam Rashidian and Eric Fox, Teledyne Dalsa

To arrive at the best CMOS imaging device design, both the physics of operating the device and the practicalities of implementing the design must be considered.

67 | PHOTONIC SENSORS HELP KEEP EARTH CLEAN, GREEN

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In energy sectors ranging from fossil fuel to geothermal, photonic technologies are playing various roles in developing and maintaining clean, efficient systems.

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by Melinda Rose, Senior Editor

A wrap-up of this year's winning entries highlights the amazing innovations of the photonics industry.

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