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Emerging Technologies in Security and Defence II; and Quantum-Physics-based Information Security III

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Contents

Authors

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Richard C. Hollins, Defence Science and Technology Laboratory (United Kingdom)

7 Photonic Systems and their Application
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Introduction to Part B: Emerging Technologies

This conference brought together emerging activities in photonic technologies, including discriminative imaging, computational imaging, micro- and nanotechnology sensors, photonic micro-devices, spectroscopic technologies and energy harvesting techniques, within the context of their associated defence exploitation as well as their potential civilian application. To help focus interest, the conference sessions were deliberately organised around a group of four keynote presentations, highlighting the growing impact of plasmonic technologies, the relevance of bio-inspiration for sensors, as well as accounts of selected programs being supported by DARPA's Strategic Technology Office and a review of active electro-optic (EO) imaging recently carried out by the National Research Council of the US Academies. Other papers covered research on EO detectors for the SWIR and MWIR bands, CMOS-MEMS integration, quaternary laser diodes for the blue spectral band and the exploitation of photonics in radar systems and for data/power transmission.

Keith L. Lewis
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Thomas J. Merlet
Alexander Toet