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EO and IR surveillance and reconnaissance system

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Abstract

In this paper, a multi-sensors, multifunction system is presented that is designed to automatically detect and track ground threats in a complex background. The system uses a linear-array CCD with TDI tech, a un-cooled IR camera, a visible camera and an eye-safe laser rangefinder housed in a two-axis gyro stabilization platform. The system scans the battle-space with high-speed, capable of providing operator with real-time, 360 degrees imagery and targets cue. Operator bases on the imagery and information from auto image processor to gain situation awareness without over-burden. As a engineering prototype, many state-of-the-art commercial-off-the-shelf(COTS) products are used in order to decrease the cost of it. Following an introduction reviewing the problems incurred in design and usage of the system are described.

Biography:

Xue Qingzeng received his PhD degree in optical engineering from Tsinghua University ,China ,in 2004.vFrom 2005 to now he is an engineer at he at the China North Vehicle Research Institute,working on digital image processing projects and optical design projects. His research intersts span pattern recognization and optical system design.

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