High Performance CCD and CMOS Cameras in Machine Vision Applications

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Abstract

High performance CCD and CMOS cameras play a key role in today's demanding applications in machine vision. Pixel resolution and speed are important specifications to achieve high throughput in automatic optical inspection. There are different types of cameras with different area scan, line scan, and time delay and integration etc. used depending on their applications. Spectral responsivity can be optimized according to the wavelengths of light source. Thanks to the increasing capacity of data processing of personal computer, colour imaging is being adopted increasingly. Applications of CCD and CMOS cameras in flat panel display, solar cell, printing, and traffic surveillance, etc. will be presented and discussed.

Biography of Speaker

Xing-Fei He is Senior Product Manager at Teledyne Dalsa, Waterloo, Ontario. He received B.Sc. and M.Sc. degrees from Zhongshan University, Gaungzhou, and a Ph.D. degree from Australian National University, Canberra, Australia. Prior, he was Product Line Manager at JDS Uniphase Corp. and Business Development Manager at Luxell Technologies. His expertise includes imaging, display and optoelectronics.