

Developing and Applying Optoelectronics in Machine Vision

Part of the Advances in Computational Intelligence and Robotics Book Series

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Description:

Sensor technologies play a large part in modern life as they are present in security systems, digital cameras, smartphones, and motion sensors. While these devices are always evolving, research is being done to further develop this technology to help detect and analyze threats, perform in-depth inspections, and perform tracking services.

Developing and Applying Optoelectronics in Machine Vision evaluates emergent research and theoretical concepts in scanning devices and 3D reconstruction technologies being used to measure their environment. Examines the development of the utilization of machine vision practices and research, optoelectronic devices, and sensor technologies.

Readers:

This book is ideally suited for academics, researchers, students, engineers, and technology developers.

ISBN: 9781522506324

Release Date: August, 2016

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Pages: 344

Topics Covered:

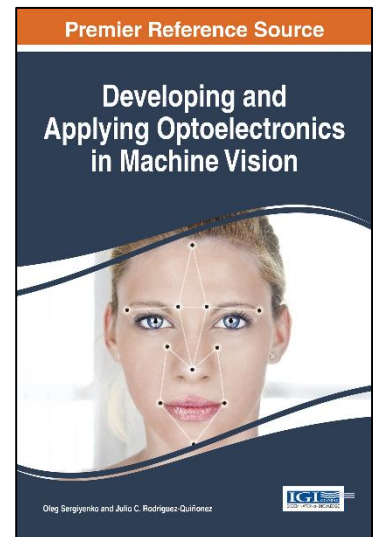
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Oleg Sergiyenko (M'09-09) was born in February, 9, 1969. He received the B.S., and M.S., degrees in Kharkiv National University of Automobiles and Highways, Kharkiv, Ukraine, in 1991, 1993, respectively. He received the Ph.D. degree in Kharkiv National Polytechnic University on specialty "Tools and methods of non-destructive control" in 1997. He has editor of 1 book, written 8 book chapters, 87 papers and holds 1 patent of Ukraine. Since 1994 till the present time he was represented by his research works in several International Congresses of IEEE, ICROS, SICE, IMEKO in USA, England, Japan, Italy, Austria, Ukraine, and Mexico. Dr.Sergiyenko in December 2004 was invited by Engineering Institute of Baja California Autonomous University for researcher position. He is currently Head of Applied Physics Department of Engineering Institute of Baja California Autonomous University, Mexico, director of several Master's and Doctorate thesis. He was a member of Program Committees of various international and local conferences. He is member of Scientific Council on Electric specialties in Engineering Faculty of Autonomous University of Baja California and Academy of Engineering. Included in the 2010-2015 Edition of Marquis' Who's Who in the World

Julio C. Rodríguez-Quirón received the Ph.D. degree from Baja California Autonomous University, México, in 2013. He is currently Professor of Electronic Topics with the Engineering Faculty, Autonomous University of Baja California. He is involved in the development of optical scanning prototype in the Applied Physics Department and research head in the development of a new stereo vision system prototype. He has written 27 papers and is currently reviewer for the IEEE Sensors Journal and participates as a reviewer and Section Chair of IEEE conferences in 2014 and 2015. His current research interests include automated metrology, stereo vision systems, control systems, robot navigation and 3D laser scanners.