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Altri autori (Persone)	KolbAndreas KochReinhard
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Fundamentals of ToF-Sensors -- A Physical Model of Time-of-Flight 3D Imaging Systems, Including Suppression of Ambient Light -- Compensation of Motion Artifacts for Time-of-Flight Cameras -- Radiometric and Spectrometric Calibrations, and Distance Noise Measurement of ToF Cameras -- Algorithms and Data Fusion --

Datastructures for Capturing Dynamic Scenes with a Time-of-Flight Camera -- Fusing Time-of-Flight Depth and Color for Real-Time Segmentation and Tracking -- Depth Imaging by Combining Time-of-Flight and On-Demand Stereo -- Realistic Depth Blur for Images with Range Data -- Global Context Extraction for Object Recognition Using a Combination of Range and Visual Features -- Shadow Detection in Dynamic Scenes Using Dense Stereo Information and an Outdoor Illumination Model -- Applications of Dynamic 3D Scene Analysis -- MixIn3D: 3D Mixed Reality with ToF-Camera -- Self-Organizing Maps for Pose Estimation with a Time-of-Flight Camera -- Analysis of Gait Using a Treadmill and a Time-of-Flight Camera -- Face Detection Using a Time-of-Flight Camera.

Sommario/riassunto

3D imaging sensors have been investigated for several decades. Recently, - provements on classical approaches such as stereo vision and structured light on the one hand, and novel time-of-?ight (ToF) techniques on the other hand have emerged, leading to 3D vision systems with radically improvedcharacter- tics. Presently, these techniques make full-range 3D data available at interactive frame rates, and thus open the path toward a much broader application of 3D vision systems. The workshop on Dynamic 3D Vision (Dyn3D) was held in conjunction with the annual conference of the German Association of Pattern Recognition (DAGM) in Jena on September 9, 2009. Previous workshops in this series have focused on the same topic, i.e., the Dynamic 3D Vision workshopin conjunction with the DAGM conference in 2007 and the CVPR workshop Time of Flight Camera-Based Computer Vision (TOF-CV) in 2008. The goal of this year's workshop, as for the prior events, was to constitute a platform for researchers working in the ?eld of real-time range imaging, where all aspects, from sensor evaluation to application scenarios, are addressed. After a very competitive and high-quality reviewing process, 13 papers were accepted for publication in this LNCS issue. The research area on dynamic 3D vision proved to be extremely lively. Again, as for prior workshops on this ?eld, numerous new insights and novel approaches on time-of-?ight sensors, on re- time mono- and multidimensional data processing and on various applications are presented in these workshop proceedings.