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Nota di contenuto Architectures for Computer Vision Systems -- A Vision System for

> Autonomous Ground Vehicles with a Wide Range of Maneuvering Capabilities -- A Framework for Generic State Estimation in Computer Vision Applications -- A Modular Software Architecture for Real-Time Video Processing -- MOBSY: Integration of Vision and Dialogue in Service Robots -- Tracking -- A Handwriting Recognition System Based on Visual Input -- Integration of Wireless Gesture Tracking, Object Tracking, and 3D Reconstruction in the Perceptive Workbench --Towards Robust Multi-cue Integration for Visual Tracking --Autonomous Driving -- Real Time Visual Cues Extraction for Monitoring Driver Vigilance -- Radar and Vision Data Fusion for Hybrid Adaptive Cruise Control on Highways -- Combining EMS-Vision and Horopter Stereo for Obstacle Avoidance of Autonomous Vehicles --Real-Time Vision Modules -- The CardEye: A Trinocular Active Vision System -- RPV-II: A Stream-Based Real-Time Parallel Vision System and Its Application to Real-Time Volume Reconstruction -- A Real-Time Vision Module for Interactive Perceptual Agents -- A Fault-Tolerant Distributed Vision System Architecture for Object Tracking in a Smart Room -- Recognition -- Compiling SA-C Programs to FPGAs:

Performance Results -- Identification of Shapes Using A Nonlinear Dynamic System -- Adapting Object Recognition across Domains: A Demonstration -- Exploration and Navigation -- A System to Navigate a Robot into a Ship Structure -- Reconstructing Textured CAD Model of Urban Environment Using Vehicle-Borne Laser Range Scanners and Line Cameras -- A Stereo Vision System for Support of Planetary Surface Exploration.

Sommario/riassunto

Following the highly successful International Conference on Computer Vision - stems held in Las Palmas, Spain (ICVS'99), this second International Workshop on Computer Vision Systems, ICVS 2001 was held as an associated workshop of the International Conference on Computer Vision in Vancouver, Canada. The organization of ICVS'99 and ICVS 2001 was motivated by the fact that the - jority of computer vision conferences focus on component technologies. However, Computer Vision has reached a level of maturity that allows us not only to p- form research on individual methods and system components but also to build fully integrated computer vision systems of signi cant complexity. This opens a number of new problems related to system architecture, methods for system synthesis and veri cation, active vision systems, control of perception and - tion, knowledge and system representation, context modeling, cue integration, etc. By focusing on methods and concepts for the construction of fully integrated vision systems, ICVS aims to bring together researchers interested in computer vision systems. Similar to the previous event in Las Palmas, ICVS 2001 was organized as a single-track workshop consisting of high-quality, previously unpublished papers on new and original research on computer vision systems. All contributions were presented orally. A total of 32 papers were submitted and reviewed thoroughly by program committee members. Twenty of them have been selected for p- sentation. We would like to thank all members of the organizing and program committee for their help in putting together a high-quality workshop.