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	Soggetti	Computer science—Mathematics
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		Pattern recognition
		Mathematical Applications in Computer Science
		Image Processing and Computer Vision
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	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Vision-Based Driver-Assistance Systems -- Driver-Environment Understanding -- Computer Vision Basics -- Object Detection, Classification, and Tracking -- Driver Drowsiness Detection -- Driver Inattention Detection -- Vehicle Detection and Distance Estimation -- Fuzzy Fusion for Collision Avoidance.
	Sommario/riassunto	This book summarises the state of the art in computer vision-based driver and road monitoring, focussing on monocular vision technology in particular, with the aim to address challenges of driver assistance and autonomous driving systems. While the systems designed for the assistance of drivers of on-road vehicles are currently converging to the design of autonomous vehicles, the research presented here focuses on scenarios where a driver is still assumed to pay attention to the traffic while operating a partially automated vehicle. Proposing various computer vision algorithms, techniques and methodologies, the authors also provide a general review of computer vision technologies that are relevant for driver assistance and fully autonomous vehicles.

Computer Vision for Driver Assistance is the first book of its kind and will appeal to undergraduate and graduate students, researchers, engineers and those generally interested in computer vision-related topics in modern vehicle design. .