Chair for Integrated Systems
TUM Department of Electrical and Computer Engineering
Technical University of Munich

Seminar

Motion Estimation Algorithms in Autonomous Driving

Biologically, human brain is sensitive to visual changes observed by our eyes. After observing visual changes, human brain takes all the required high level behavioral decisions. In autonomous driving, various camera sensors help to perceive the motion in the surroundings, e.g. pedestrians, cyclists, automobiles etc.. This motion perception includes localizing, estimating velocities, tracking, and estimating trajectories of the road users. Motion estimation is a very well researched domain in machine vision over past 30 years. There are studies focusing on motion estimation using disparity estimation, eg. dense optical flow, stereo global matching. This seminar topic will focus on comparative study of the available start-of-the-art algorithms for dense optical flow and stereo global matching on continuous video frames.

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