

A Sensor Fused System for Recognition of On-street Parked Vehicles

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Here we present a system that fuses data from a vision sensor and a laser sensor for detection and classification. Fusion of these two sensors enables us to obtain 3D information of an object together with its textures, offering high reliability and robustness to outdoor conditions. To evaluate the performance of the system, it is applied to recognition of on-street parked vehicles scanned from a moving probe vehicle. The evaluation experiments showed obviously successful results, with a detection rate of 100% and an accuracy over 95% in recognizing four vehicle classes.

Publication

- [1] S.Mohottala, S. Ono, M. Kagesawa, K. Ikeuchi, "Fusion of a Camera and a Laser Range Sensor for Vehicle Recognition," *6th IEEE Workshop on Object Tracking and Classification Beyond and in the Visible Spectrum (OTCBVS)*, Florida 2009.

