



Alexander Schaub

Robust Perception from Optical Sensors for Reactive Behaviors in Autonomous Robotic Vehicles

• Publication in the field of technical sciences

Alexander Schaub examines how a reactive instinctive behavior, similar to instinctive reactions as incorporated by living beings, can be achieved for intelligent mobile robots to extend the classic reasoning approaches. He identifies possible applications for reactive approaches, as they enable a fast response time, increase robustness and have a high abstraction ability, even though reactive methods are not universally applicable. The chosen applications are obstacle avoidance and relative positioning – which can also be utilized for navigation – and a combination of both. The implementation of reactive instinctive behaviors for the identified tasks is then validated in simulation together with real world experiments.

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