Universität Basel

Publication

Recognition of Door-number Plates for Mobile Robot Localisation

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In this paper a vision system for the recognition of door number plates in office buildings is presented. The motivation for the development of such a system is the improvement of other methods for the position update of mobile robots, which are mainly based on measurements stemming from distance-sensors. Furthermore, the recognition of door plates can be used for absolute positioning of mobile robots as well as an universal method for automatic generation of environment maps in office buildings, hospitals, etc. The whole system has been developed using a combination of classical vision algorithms with neural networks to ensure high flexibility and robustness of the system. The achieved results show that the correct recognition of the door plates is ensured in real time even under changing environment conditions.