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Keynote Paper

Autonomous Robot Navigation Technologies for Smart Cities

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ABSTRACT

In this talk, the core technologies of robot navigation and their applications for smart cities will be introduced. Various SLAM (Simultaneous Localization And Mapping) researches using sensor fusion of vision, LiDAR, and magnetic sensors will be discussed for autonomous navigation in smart cities. The applications include self-driving cars, structural health monitoring (SHM), wall-climbing drones, environmental robots, e.g. JEROS (Jellyfish removal robot), oil spill protection robot, and green algae removal robot.



Fig. 1 Robot navigation and its applications to smart cities

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