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Title of presentation: Study of AI-Based System for Remote Navigation of Service Robotics

Abstract

Service robotic systems have many practical applications in areas like assisted living for older-adults, security and surveillance. As a remotely controlled system, they must be able to move through their surrounding environment, communicate the sensed information with the controller or even with each other. Through network connectivity, these robots can also be controlled semi-autonomously by a user while viewing the surrounding scenes through augmented reality using an onboard camera. The objective of this project is to explore the notion of AI for such remote control applications. The service robot can be deployed in a known indoor living environment containing various stationery and moveable items. To demonstrate the effectiveness of this proposal, a camera is moved in a known environment where the graphic objects are overlaid on the live video stream in order to assist the remote navigation.