

Student/Bachelor/Master Project: Voice Control for a Camera System

Description:

The aim of the project is the creation of a small voice-controlled device that can operate offline and replace physical camera control buttons. The total number of voice commands should be around dozen of words (phrases), such as zoom in, zoom out, move left, move right, etc. The model for voice recognition should be lightweight, and capable of running on devices such as Raspberry Pi 4. The student is expected to find corresponding open-source AI tools, test and compare them on the device (Raspberry Pi) and demonstrate voice control (including activation word) with a simple program. Due to the low number of commands, the relatively high accuracy of the system is expected.

Prerequisites:

Knowledge of Python programing language Knowledge of Linux

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References:

[PAL19] S. Pal, A. Chauhan, S.K. Gupta. Voice Controlled Smart Home Automation System, International Journal of Recent Technology and Engineering 8(3), 2019