Bahria University

Discovering Knowledge

FINAL YEAR PROJECT REPORT

GAZE BASED INTERACTION WITH ELECTRICAL APPLIANCES

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GAZE BASED INTERACTION WITH ELECTRICAL APPLIANCES

ABSTRACT

The objective of this research-based project is to develop Eye blink detection system which help us to interact with different appliances in our house, and also help people which are not physically stable, for example who does not able to move their hands and are not able to stand on their own feet. To accomplished this research we divided it to small parts, such as firstly we extract feature of images using computer vision and digital images processing concepts which include some major techniques such as template matching, edge detection techniques for example canny edge detector, Handle noise in image and try to smooth image in order to reduce noise with the help of different filters and many more techniques. After feature detection we will create our model with the help of machine learning with data set of eye images and integrating it into the hardware module. Finally, in the end we test and evaluate our results and improve system accuracy according to the results.

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