

Title Facial Liveness Testing - an analysis of different methods

Project Type Computer Vision, Image Processing and Security

Description - In order to avoid spoofing in facial recognition systems, liveness tests are needed. - There are many facial liveness tests, but a comparison of these methods against one another doesn't currently exist.

Preliminary Preparation

- Existing liveness tests
- What are the datasets available for testing/training of these liveness methods?

Minimum Objectives

- Build the test framework, to test using several different datasets and different methods, comparing them.
- Implement the image quality based liveness test

Intermediate Objectives

- Implement the eye tracking liveness method

Advanced Objectives

- Implement facial flashing

References

- Keras (<https://keras.io>) for Machine Learning
- OpenCV (<https://opencv.org/>) for Image Processing

