
Master / Bachelor Thesis

Impact of eye diseases on biometric verification

da/sec

da/sec is the biometrics and internet security research group and is affiliated with University of Applied Sciences Darmstadt and the Center for Research in Security and Privacy (CRISP). It is led by Prof. Dr. Harald Baier and Prof. Dr. Christoph Busch. The focus of the group is on highly innovative and applied IT security research in the special fields of biometrics, internet security and digital forensics. Read more on <http://www.dasec.h-da.de/>.

Motivation & Goals



The use of irises as a biometric characteristic has increased over the past decades in a wide variety of scenarios, ranging from access control to smartphone and laptop unlocking. In addition, recent privacy concerns have fostered the development of biometric template protection schemes in order to grant the necessary privacy to the subjects. In spite of the many advantages of iris verification with respect to other characteristics, recognition accuracy decreases in the presence of diverse eye diseases. It is thus important to evaluate the impact of such diseases on the performance of both traditional biometric systems and template protection schemes.

Tasks

- Independent research on state-of-the-art of the impact of eye diseases on biometrics
- Evaluation and analysis of its impact on biometric and biometric template protection schemes

Requirements

- High motivation and creativity
- Strong interest in research
- Familiar with Matlab
- Good analytical skills

Start

Immediately / by appointment

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