

## – Master-/Bachelor Thesis – Multi-Biometric Cryptosystems

da/sec



da/sec is the biometrics and Internet security research group and is affiliated with University of Applied Sciences Darmstadt and the National Research Center for Applied Cybersecurity (ATHENE). The group is led by Prof. Dr. Christoph Busch. The focus of the group is on highly innovative and applied IT security research in the special fields of biometrics. Read more on [www.dasec.h-da.de](http://www.dasec.h-da.de).

**Motivation & Goal**

Biometric cryptosystems enable a privacy-preserving use of biometric technologies. However, the entropy of single biometric characteristics, e.g. a face or a fingerprint, are limited. Therefore, a fusion of multiple biometric characteristics is needed.

The goal of this project is to investigate different biometric fusion methods in order construct effective multi-biometric cryptosystems.

**Tasks**

- Theoretic design of fusion algorithms
- Implementation of different fusion methods
- Evaluation of performance and security of multi-biometric cryptosystems on public database

**We offer**

- Incentives for the student to work on this project (work within scientific context, international collaboration, work on project in collaboration with companies)

**Requirements**

- High motivation and creativity
- Programming skills
- Good analytical skills
- Interest in biometric recognition

**By Date**

By now / by appointment

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