
– Master-/Bachelor Thesis –

Comparison of 2D to 3D touchless Fingerprint Processing

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). The group 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 www.dasec.h-da.de.

Motivation & Goal

Touchless fingerprint recognition is a fast-growing research topic. Compared to touch-based acquisition a touchless scheme achieves a higher user acceptance and usability. The acquisition and preprocessing can be done in 2D or 3D which has different advantages and obstacles. The goal of this thesis is to select and implement a preprocessing for both, the 2D and 3D datasets and compare the performance of the systems based on different metrics.

Tasks

- Implement a preprocessing for 2D and 3D datasets
- Evaluate the performance of the system

We offer

- Incentives for the student to work on this project (work within scientific context, international collaboration)
- Database containing biometric samples

Requirements

- High motivation and creativity
- Image processing experiences
- Good programming skills
- Good analytical and mathematical skills

By Date

By now / by appointment

Contact

Jannis Priesnitz
Jannis-priesnitz@freenet.de

h_da
Faculty of Computer Science
CRISP – Center for Research in Security and Privacy
da/sec – biometrics and internet security research group
Schöfferstraße 8b
64295 Darmstadt

