

Presentation Attack Detection for Ocular and Face biometrics



Motivation

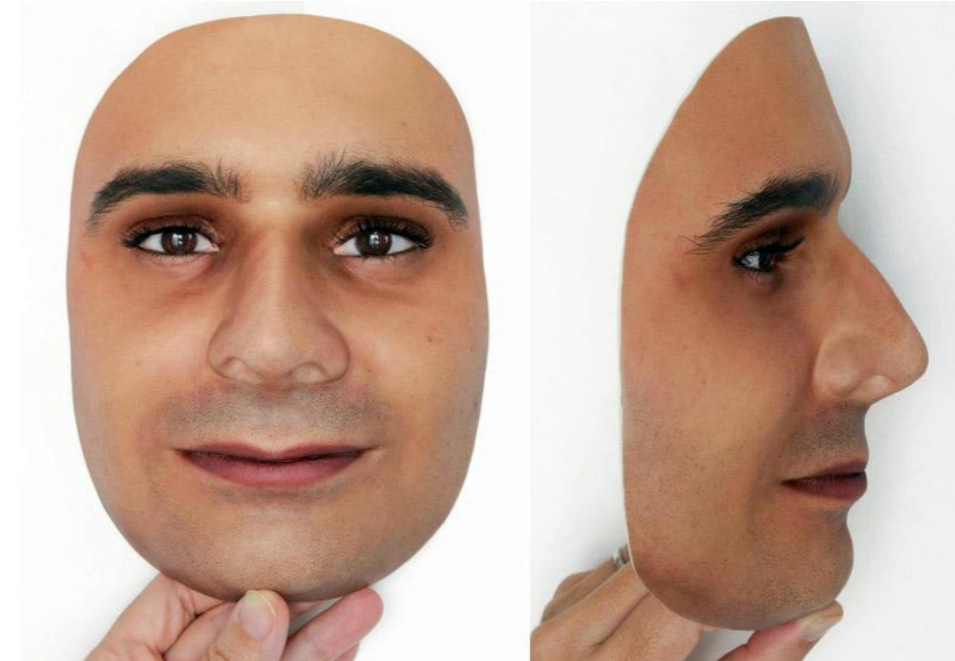
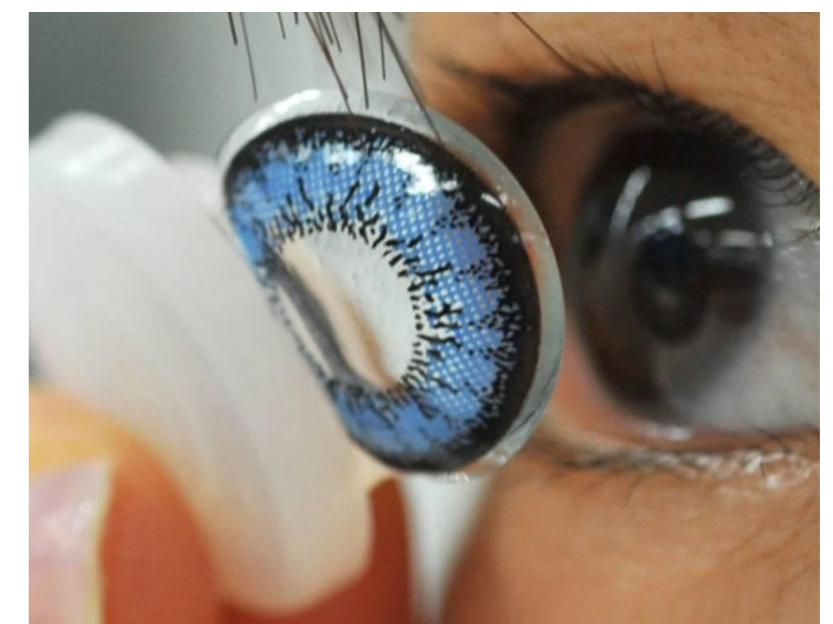
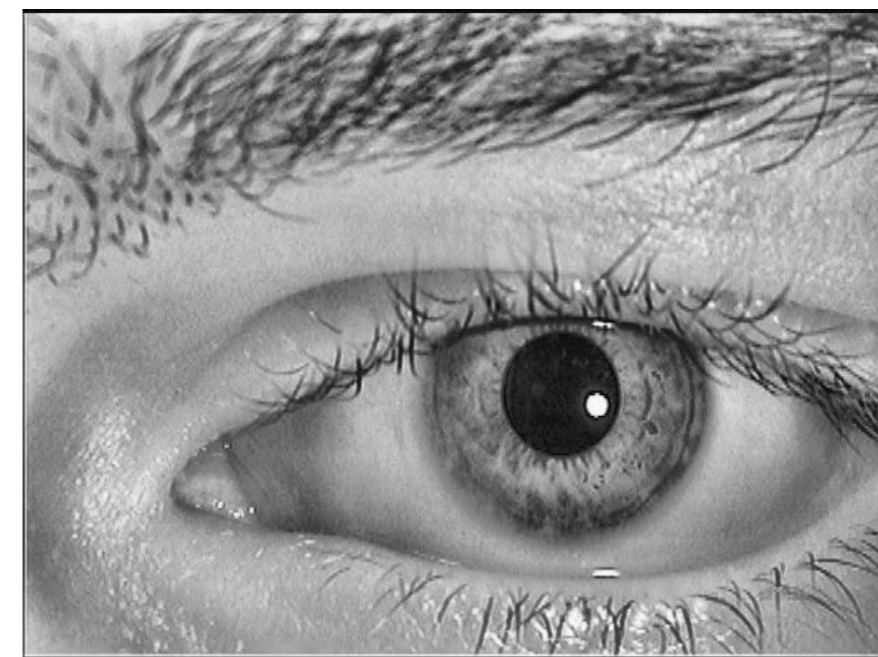
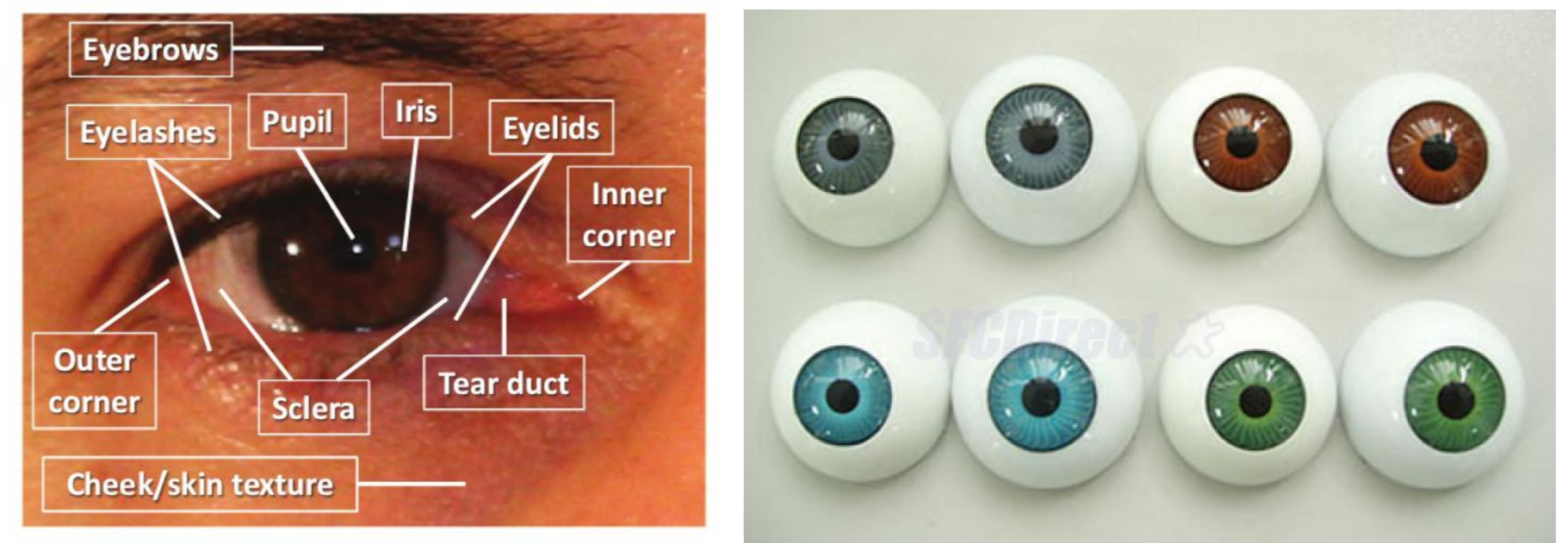
- Presentation attacks are a critical problem in Biometric systems
- State-of-the-art methods are vulnerable to such attacks

Objective

- Develop Presentation Attack Detection (PAD) methods to prevent such attacks
- Develop an efficient PAD algorithm that can be generalized to unseen/unknown attacks

Approach

- Use different capture devices: NIR, visible spectrum
- Build a cross-sensor dataset
- Combine multiple biometrics: ocular, iris, face
- Using traditional machine learning and deep learning techniques to model PAD



Office of the Director of National Intelligence

I A R P A

BE THE FUTURE

Related Work

- Raghavendra, R., & Busch, C. (2015). Robust scheme for iris presentation attack detection using multiscale binarized statistical image features. *IEEE Transactions on Information Forensics and Security*, 10(4), 703-715.



Hareesh Mandalapu
hareesh.mandalapu@ntnu.no



Dr. R. Raghavendra
raghavendra.ramachandra@ntnu.no



Prof Dr. Christoph Busch
christoph.busch@ntnu.no