

State of the art of Morphing Detection



Motivation

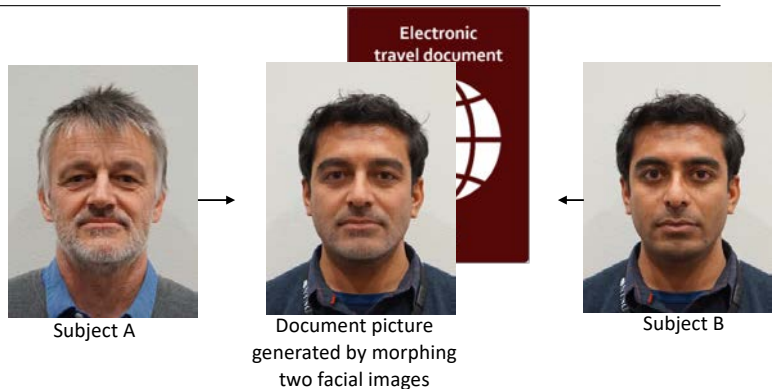
- Face is one of the preferred biometric characteristics which is widely used in various applications for securing physical and logical access and border control among many others.
- The morphed face images of reasonable quality is sufficient enough to challenge the human observers and automatic system.

Objective

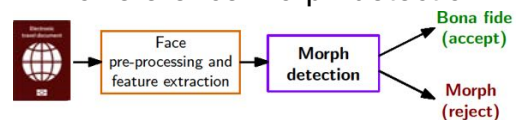
- Identify the state-of-the-art of morphing attack detection mechanisms and to analyze their detection accuracy on a sequestered dataset.
- Provide automated detection approaches to detect morphs at border control as well as early in the application process.

Approach

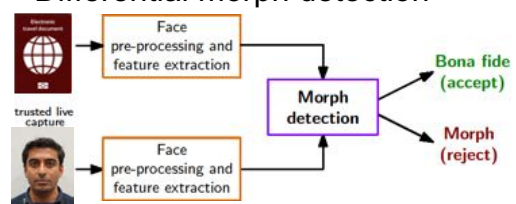
- A database of morphed face images will be constructed from bona fide (not morphed) face images that comply with the ICAO standards.
- The project will assess the vulnerability of biometric systems and evaluate, if and to what extent, the current state-of-the-art is sufficiently mature to be deployed as immediate response to morphing image attacks.



No-reference morph detection



Differential morph detection



Related Work

- R. Raghavendra, K. Raja, C. Busch: "Detecting Morphed Facial Images", in Proceedings of 8th IEEE International Conference on Biometrics: Theory, Applications and Systems (BTAS-2016), USA, (2016)
- R. Raghavendra, Kiran B. Raja, Sushma Venkatesh, Christoph Busch, "Face Morphing Versus Face Averaging: Vulnerability and Detection", IEEE- IJCB 2017, IEEE International Joint Conference on Biometrics-2017, Denver



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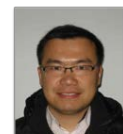
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