

# BATL - Biometric Authentication with Timeless Learner



## Motivation

- Biometric systems are vulnerable to external attacks
- In particular, to presentation attacks carried out with contact lenses, gummy fingers, 3D masks, etc.



## Goals

- Develop Presentation Attack Detection (PAD) methods to prevent such attacks
- Focus: iris, face, fingerprint
- Develop an integrated system using state-of-the-art verification methods and the new PAD algorithms



## Approach

- Combine different capture devices: NIR, visible spectrum, speckle image
- Extract several sets of independent features, combining them with traditional machine learning approaches and deep learning techniques
- Combine face, iris and fingerprint in a single PAD, to increase detection rate



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## Related Work

- K. B. Raja, R. Raghavendra, C. Busch, "Video Presentation Attack Detection in Visible Spectrum Iris Recognition Using Magnified Phase Information", IEEE TIFS, 2015.
- J. Galbally, M. Gomez-Barrero: "A Review of Iris Anti-Spoofing", Proc. IWBF, 2016.



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