

FORENSIC LITERATURE THESIS

LITERATURE THESIS

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| Title | : Forensic Deepfakes |
| Keywords | : Biometrics, deepfakes, low quality CCTV images |
| Forensic Expertise Area | : Face biometrics, computer vision |
| Department | : Data management and biometrics |
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SHORT DESCRIPTION

Generative neural networks (GAN) are powerful computational structures that are able to produce very convincing deep fakes; realistically looking images or videos of (acting) persons. One can imagine that deep fakes could be utilized in a forensic setting as well, in which the defendant claims that the CCTV evidence presented in court is a deep fake, questioning the "beyond a reasonable doubt".

The aim of the literature thesis is to investigate to which extent low quality/CCTV deep fakes have been studied/addressed in (forensic) literature and in particular which measures have been taken to detect them.

REFERENCES

1) DeepFakes and Beyond: A Survey of Face Manipulation and Fake Detection, Ruben Tolosana et al., 2020, <https://arxiv.org/abs/2001.00179>

REQUIRED/RECOMMENDED EXPERTISE

- Biometrics
- Computer vision
- Neural networks

