

Title: *Impact of shifting time-window post-processing on the quality of face detection algorithms*

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Key points:

- Numerous identified algorithms for detecting faces in videos operate only on single video frames.
- The class of such algorithms has been named OFA (One Frame Analyzed).
- To utilize the temporal information of the video, a result post-processing method is proposed.
- The proposed method (Frame Sequence Analysis – FSA) operates using a shifting time window and improves existing OFA algorithms
- Two algorithms for face detection are evaluated in terms of their results' properties and susceptibility to the FSA improvement – the Viola-Jones detector and a Single Shot Detector deep neural network.
- Conclusions are drawn regarding the applicability of the FSA method and future directions of work