

Image Analytics to Detect Cigarette in an Image Using Deep Learning

Advances in Signal and Data Processing pp 659-678 | Cite as

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Conference paper

First Online: 12 January 2021

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Part of the [Lecture Notes in Electrical Engineering](#) book series (LNEE, volume 703)

Abstract

Significant number of modern films depict some form of tobacco use, but rarely depict its real-life consequences such as addiction, illness and death. As per [1], anti-tobacco health warnings are mandatory for scenes depicting smoking scenes. In this paper, an automated recognition system is proposed to identify images with smoking activities and tag them accordingly. The proposed approach implements the technique of object detection based on deep learning. Convolutional neural network is used to generate feature maps from the images. These machine-learned features are used to classify the images. The system can detect the smoking events of uncertain actions with various cigarette sizes, colors and shapes. We have experimented our work by applying the proposed approach to two real-world datasets and that have demonstrated the effectiveness of our solution with a decent model accuracy.

Keywords

Cigarette detection Deep learning Convolution neural network

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