

## عنوان مقاله:

A new method for anomaly detection and localization in crowded scenes using deep learning networks

## محل انتشار:

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## خلاصه مقاله:

Video anomaly detection is the learning of normal pattern in image sets. This is in contrast to most classifications which can guide the algorithm through the use of labels. Most deep learning based video anomaly detection techniques involve some form of video reconstruction. In other words, the network learns to reconstruct the video in training and lacks anomalies in training set. In the test phase, reconstruction happens again and it is expected that the network preserve normal pattern and degrade anomalies. Video anomaly detection is usually studied by considering the spatial and temporal contexts. This paper focuses on spatial context only and shows that while the overall detection rate falls without temporal context, localization gets better. There are two main contributions: employing a new deep network for reconstruction and introducing a new regularity score function. The new deep architecture is based on pyramid of input images and compared to UNet, this new architecture boosts AUC by ۱۵%. The new regularity scoring function is based on SSIM which in turn results in a noticeable performance gain

## کلمات کلیدی:

.Anomaly detection, Deep learning, Convolutional autoencoder, Reconstruction

## لینک ثابت مقاله در پایگاه سیویلیکا:

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