Abstract

Face recognition has been considered as one of the most important means of security in prevention of crimes in this era. Surveillance cameras in crowded areas keeps good monitoring of all activities. So, it can be used as a witness against criminals or can be used to prevent crimes before happening. With the advancement in deep neural networks in surveillance cameras, face recognition accuracy has increased in challenging environments too. But this country is still lagging behind in this regard. So, the proposed work focuses mainly on face recognition with custom Bangladeshi dataset that can be robust enough against blurriness, pose variations and occlusions. Single Shot Multibox Detector (SSD) model was chosen since it produced significant improvement in accuracy compared to many state of the art models. Tensorflow API was used with SSD-Mobilenet-FPN model config to generate alarms when targeted face was recognized among many faces in crowd.

References
6. Q. D. Xiao Han, "Research on Face Recognition Based on Deep," 2018.

**Index Terms**

Computer Science   Security
Keywords

Bangladeshi Face Dataset, Targeted Face Recognition, Single Shot Multibox Detector, Tensorflow API, Alarm.