

Over the past few years, due to an easy access of high resolution and low-cost cameras, digital images have become a main source of information and communication. However, these images can easily be altered by using different image editing tools. This alteration can be of many types like splicing, copy-move, retouching etc. Images are edited in such a way that it is even difficult for humans to identify that the image is authentic or altered. So, there is a need to develop an image alteration detection approach which can identify the tampered and authentic images and also localize the tampered region. In this thesis, an encoder-decoder based model is proposed for image alteration detection and localization. The proposed model consists of two modules. Encoder module is basically used for the classification purpose. Feature are extracted from the image and down-sampling operation is performed which results in reducing the size of image. Extracted feature maps are then passed to the decoder module which performs up-sampling operation. Main function of decoder is pixel level analysis of the image for localization of the tampered region. It gives high resolution feature maps which are then passed to the Softmax layer and output is generated. The proposed model deals with multiple types of manipulations and also postprocessing operations applied to the images. It is evaluated on the basis of different metrics. Obtained results demonstrate that the proposed model outperforms many existing state-of-the-art approaches.