

INITIAL REPORT

Existing System

In the past, people detecting of counterfeit banknote only manual or using a hardware machine which is not easy available in market. The technology of currency detection system basically used for identification and extraction the features of bank note. Tremendous research has contributed to this idea and proposed many different works. Most of the approaches proposed are based on image processing techniques. Firstly image capturing process is done through digital camera. The crucial component in digital image processing is feature extraction of images. Invisible and observable features of Indian currency notes are take out.

There is other fake currency detection systems using KNN, and systems based on MATLAB etc.

Proposed System

The system proposed here considers the new security features of Indian currency which is provided by the government of India so that they can differentiate between the fake and real note. Detecting of fake note some module including image acquisition, Image per-processing, Image adjusting, Gray scale conversion, Edge detection, Segmentation, Feature extraction classification every step required algorithm for which using OpenCV library (open source computer vision library). Acquisition of image is process of capture a image from camera such that all features are highlighted. In the project we proposed a novel approach for the detection and classification of duplication in currency

The system proposed here work on the image of Indian currency note acquired by a digital camera. The method which is applied here is as follows a. Acquisition of image of Indian currency note by simple digital camera or scanner. b. Image acquired is RGB image and converted to Gray scale image. c. Edge detection of whole gray scale image. d. Now Indian currency features of the paper currency both observe and reverse will be cropped and segmented. e. After segmentation, feature of Indian currency note are extracted. f. BF matcher match that database features with test images note then the test note is said as original otherwise fake. This OpenCV based

system uses effective computer vision methods and algorithm which provide accurate and reliable result.

Relevance

In the last eight years more than 3.53 lakh cases of counterfeit currency detection in India's banking channels is heighten according to latest government reports. The practice of counterfeiting became more refined with the arrival of paper currency. The Indian Government has taken a astonishing stride of demonetizing 500 and 1000 Rs. notes. Prime Minister Shree. Narendra Modi stated that one of the cognition for this policy was to counter the climbing menace of counterfeit Indian Currency notes. However, the Indian banks acknowledged an all-time peak amount of fake currency and also noticed an over 480% increment in doubtful transactions after demonetization, a first ever report on questioning credits ended in the wake of 2016 notes ban has discovered. The Reserve Bank of India(RBI) is the only one which has the singular authority to issue bank notes in India. The RBI being the highest monetary authority in the country, prints the currency notes of all denominations from Rs.2 to 2000. Several security features have been published by the RBI so that the counterfeit notes can be detected by the general public. However, distinguishing a counterfeit note just by visual per lustration is not an easy task. Moreover, an average person is unaware of all the security features. Developing applications which can detect a currency note to be counterfeit by a camera image can help solve this problem. Deep learning models have witnessed a tremendous success in image classification tasks .Our model proposes a binary image classification task with two classes-fake or real.