Fake Currency Detection App

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Abstract - *The main purpose of this project is to obtain a false-positive income using Machine Learning. This process can be automated on mobile using the application software. Basic logic is developed using image acquisition, image segmentation, feature extraction and comparison. Enlarged images of the real currency are transferred to the Machine learning dataset. The features of the note to be tested are compared to a dataset made from an actual enlarged image and determine whether it is real money or fake. The most important challenge is to repeat the systematic and systematic review process to reduce error and time.*

In recent years, a large number of counterfeit coins have been printed & at the same time other illegal rings are producing and selling counterfeit coins, resulting in massive loss and damage to society. So, it is a color to be able to get fake money. We propose a new proposal for obtaining fake Indian notes using their images. A coin image is represented in a space of differences, which is a vector space created by comparing an image with a set of real money proteins. Each scale measures the differences between the image presented and the model presented. In order to find the differences between the two images, the key points of the location of each image are identified and explained. Based on the characteristics of the currency, the corresponding key points between the two images can be clearly identified. The posting process is also proposed to remove key points. Due to the limited number of non-real-world funds, SVM is designed to detect fake cash, so only real money is needed to train a classifier.

1. INTRODUCTION

Currency duplication (counterfeit currency) is a vulnerable threat on economy. It is now a common phenomenon due to advanced technology of printing and scanning. Country has been facing serious problem by the increasing rate of fake notes in the market. The Reserve bank of India estimates that there is at least Rs.2 trillion of fake rupees note in circulation throughout India. To get rid of this problem various fake note detection methods are available around the world and most of these are hardware based and costly. This machine is mostly available only in banks which is not reachable every time by average citizen. the problem is in acute situation and people want easier way to deal with it.

 Fake Currency Detection App is developed for recognizing fake currency from the App. As, there are number of android

mobile phone users in the country and increases per day; to provide an android application regarding fake currency detection is a good idea. The App designed to check the Indian currency note & coins. The system will display currency is genuine or fake.

1.1 Commonly Used Methods to Detect Fake   Notes

i. Check by Registration: A small floral design is printed in the center of a vertical band near the watermark. The flowers on the front are empty and the back is full. The floral design is now back in print. The design will see it as a single floral design when viewed against light.

ii. Water marking: The mahatma Gandhi watermark is present in bank notes. The mahatma Gandhi watermark has shadow effect and multidirectional lines in the watermark.

iii. Flexible Ink: It is a flexible ink that can be used for a safety feature; this type of feature is at Rs.200, 500, and Rs. 2000 bank note. Variable ink as a security feature of a bank note was introduced in Nov.2000. The value of the program is printed with the help of optical conversion ink. The color of 2000 or 500 numbers seems green, when the note is bright but changes color to blue when held at an angle.

iv. Fluorescence: Fluorescent ink is used to print numerical panels of notes. The note also contains fiber optical. A number panel on fluorescent ink and fiber optical ink can be seen when exposed to UV light.

v. Security anointing: The security cord is in 2000 with 500 notes, shown on the left of Mahatma Gandhi's photo. In the security fence the visual aspect of RBI and BHARAT. When the note is held to light, the safety line can be seen as a single continuous line.

vi. Latent Image: The last image shows the correct program number by number. On the left side of the notes, the front image is to the right of the Mahatma Gandhi statue in a vertical pattern. When the note is held horizontally at eye level then the resulting image is displayed.

vii. Micro Letters: A small letter appears between the Mahatma Gandhi image and the vertical band. A small letter contains the amount of an index of a bank note in lowercase. The value of the program can be clearly seen under the magnifying glass.

viii. Identity Document: Each note has its own unique identifier. There are various instances of different branding tags (Rs.200-H, Rs.500-square and Rs.2000- Square). A type of identification is located to the left of the water sign.

Figure.1.   Security Features of Indian Currency

2. LITERATURE REVIEW

Previous notable work in the Fake Currency Detection App involved the use of a different method of obtaining false money. Some of these functions are discussed below.

2.1 Functional Call for obtaining fake notes by Neha N.

21-year-old Mysore engineering student Neha N. has launched a mobile app that can tell real-time notes without their partners. According to Neha's research, a cache notes when caught in the light, shows you a picture of Mahatma Gandhi and that appears in faxes but not as bright as the original text. In addition, all real notes with magnetic marking markers and will be ultraviolet light, Neha developed an app to get such a look.

2.2 Working Call for obtaining false notes by SJEC students

Students of the Ministry of Technology and Communication from St Joseph Engineering College (SJEC) have designed a fake note detector that can check the authenticity of Indian currency notes. The device can check notes with the help of security features found in the note. It is able to find out the true currency and track the serial number.

2.3 A Functional Call for obtaining fake notes by Ninaad Pai

As a Project Manager, he worked on the strategies for the recognition of pre-existing characters. Design and development of image recognition function to text conversion of serial numbers to Indian federal agencies for fraud detection

3. Work Flow
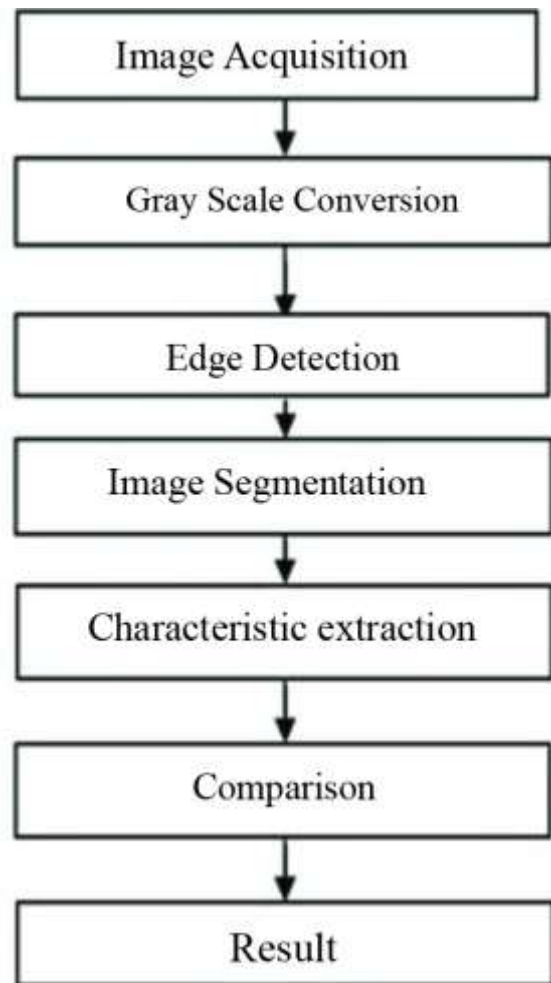
4. CONCLUSION

The main motive behind the development of this application is to provide a better way for people to find out about money using an easily accessible device.

5. REFERENCES

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