

## **FAKE SRI LANKAN CURRENCY DETECTION USING IMAGE PROCESSING TECHNIQUES**

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Fake currency is a major crime in Sri Lanka. Due to the advances in printing and scanning technology, it is much difficult to identify a fake currency. This research focuses to verify the Sri Lankan currency notes via image processing techniques. In the initial stage of this study, Sri Lankan currency notes are scanned and pre-processed to remove the background and noises. In the next step, the currency notes are binarized and then segmented. We have extracted the security thread, blind recognition lines, and raised print marks features through image processing algorithms. In the evaluation step, the quantity of obtained features and actual features are compared. Based on the comparison results, we have found that number of lines in raised printed in each denomination currency note (500, 1000 and 5000) are same, size of all the circles in the blind recognition feature in each denomination of currency note has approximately same size, and width of the rectangle in security thread in currency note is same but it differs for each denomination. In conclusion, the proposed work is able to identify the Sri Lankan currency notes by comparing the actual features with image processing features.

**Keywords:** fake currency, image processing