

## Automated Money Detection Application for Trinidad and Tobago Currency Notes

Jesse B. Saitoo<sup>a</sup> and Akash Pooransingh<sup>b,Ψ</sup>

Department of Electrical and Computer Engineering, Faculty of Engineering, The University of the West Indies, St Augustine,  
Trinidad and Tobago, West Indies

<sup>a</sup>E-mail: jesse.saitoo@my.uwi.edu

<sup>b</sup>E-mail: akash.pooransingh@sta.uwi.edu

<sup>Ψ</sup> Corresponding Author

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**Abstract:** *One of the challenges faced by visually impaired persons is the recognition of currency. Mobile phones are becoming more affordable and are being used by the visually impaired community to help them in their everyday lives. This paper investigates the Local Binary Patterns (LBP) as a method to recognise Trinidad and Tobago currency notes. A mobile application was developed and the effectiveness of the LBP algorithm was tested in terms of speed, robustness to illumination, scale and rotation. The LBP algorithm realised a recognition rate of at least 95 percent for Trinidad and Tobago currency. The recognition rates on mobile devices were compared for the LBP and the ORB (Oriented FAST and Rotated BRIEF) methods.*

**Keywords:** *Local Binary Pattern, Multiple Object Detection, Object Recognition, Visually impaired*