Abstract

Banknotes are one of the most important assets of a country. Some miscreants introduce fake notes which bear a resemblance to original note to create discrepancies of the money in the financial market. It is difficult for humans to tell true and fake banknotes apart especially because they have a lot of similar features. Fake notes are created with precision, hence there is need for an efficient algorithm which accurately predicts whether a banknote is genuine or not. This paper proposes machine learning techniques to evaluate authentication of banknotes. Supervised learning algorithms such as Back propagation Neural Network (BPN) and Support Vector Machine (SVM) are used for differentiating genuine banknotes from fake ones. The study also shows the comparison of these algorithms in classification of banknotes.

References

Analysis of Banknote Authentication System using Machine Learning Techniques

Engineering and Applications (ICACEA), 2015.


Index Terms

Computer Science

Security
Keywords

Banknote Authentication, Back Propagation Neural Network, Support Vector Machine, Hold-out, ROC