A Project report

on

FAKE CURRENCY DETECTION USING DL

Submitted in partial fulfillment of the requirements

for the award of the degree of

BACHELOR OF TECHNOLOGY

in

Computer Science & Engineering

by

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SRINIVASA RAMANUJAN INSTITUTE OF TECHNOLOGY

(Affiliated to JNTUA & Approved by AICTE)

(Accredited by NAAC with 'A' Grade &Accredited by NBA(EEE, ECE &CSE))

Rotarypuram Village, B K Samudram Mandal, Ananthapuramu-515701.

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Certificate

This is to certify that the project report entitled Fake Currency Detection Using Deep Learning is the bonafide work carried out by **K. RUCHITHA** bearing Roll Number 184G1A0566, **J.VINAY** bearing Roll Number 184G1A05B4, **G.SAI SUBRAMANYAM** bearing Roll Number 174G1A0573 and **M.SUHAS** bearing Roll Number 184G1A05A0 in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology** in **Computer Science & Engineering** during the academic year 2021-2022.

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ACKNOWLEDGEMENT

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DECLARATION

We MS. K. Ruchitha bearing reg no : 184G1A0566, Mr. J. Vinay bearing reg no : 184G1A05B4, Mr. G. Sai Subramanyam bearing reg no : 174G1A0573, Mr. M. Suhas bearing reg no : 184G1A05A0, students of SRINIVASA RAMANUJAN INSTITUTE OF TECHNOLOGY, Rotarypuram , hereby declare that the dissertation entitled "FAKE CURRENCY DETECTION USING DEEP LEARNING" embodies the report of our project work carried out by us during IV Year Bachelor of Technology under the guidance of Mr. K. Lokeshnath M.Tech,(Ph.D)., Assistant Professor, Department of CSE and this work has been submitted for the partial fulfillment of the requirements for the award of Bachelor of Technology degree.

The results embodied in this project report have not been submitted to any other Universities of Institute for the award of Degree.

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LIST OF ABBREVIATIONS

CNN	Convolutional Neural Networks
SVM	Support Vector Machine
FICN	Fake Indian Currency Note
DL	Deep Learning
ML	Machine Learning

ABSTRACT

Great technological advancement in printing and scanning industry made counterfeiting problem to grow more vigorously. As a result, counterfeit currency affects the economy and reduces the value of original money. Thus it is most needed to detect the fake currency. Most of the former methods are based on hardware and image processing techniques. Finding counterfeit currencies with these methods is less efficient and time consuming. To overcome the above problem, we have proposed the detection of counterfeit currency using a deep convolution neural network. Our work identifies the fake currency by examining the currency images. The transfer learned convolutional neural network is trained with two thousand currency note data sets to learn the feature map of the currencies. Once the feature map is learnt the network is ready for identifying the fake currency in real time. The proposed approach efficiently identifies the forgery currencies of 2000 with less time consumption.