iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 9 **Issue:** VII **Month of publication:** July 2021

DOI: https://doi.org/10.22214/ijraset.2021.36289

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429
Volume 9 Issue VII July 2021- Available at www.ijraset.com

A Review Paper on Automatic Coin Sorter for Temples using IOT

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Abstract: ***At non-secular places like temples, gurdwaras, and lots of others, devotees gift cash within the donation box. It's a giant deal to sight the truth of the given cash. Similarly, cash numeration has been a giant task because it is allotted manually. Mistakes on numeration happen most of the time because of several reasons like eyes temporary state, losing focus, etc. typically fiddle of cash happens at the time of numeration money. To prevail over these issues Automatic Coin Sorter for Temples using IOT is meant. During this system, the truth of the coin is detected employing a dimension standardization method. Then the coins when some delay area unit sorted and area unit inserted into the various assigned box with the assistance of the motor. All the data regarding the coin is distributed to the Associate in Nursing digital display wherever the worth, reality, and count of the coin area unit are displayed. The overall count of the noon and full-day is distributed to the various head person through the applying. The advantage of this review paper for the reader is to achieve information about numerous technologies used for creating this method.***

Keywords: Image Recognition, IOT Technology, Dimension Detection.

I. INTRODUCTION

We are living in an epoch in which technology is budding very speedily. An Automatic Coin Sorter for Templesusing IoT is a need for a new era. At the temples it is a big question of whether the donated money is real or fake then again money counting has been a big duty as it is done manually. The alternative for all this is Automatic Coin Sorter for Temples using IoT. In this system, the veracity coin is detected with the assistance ofcalibration of the coin.

Suppose if the coin fails to prove its veracity then it is returned. the coin is sorted based on their dimensions and values. The counting process is done inevitably, which overcomes the earlier problems of counting mistakes due to manual counting and reduces the required time for counting the money manually. This system gives the display of the value of money inserted, total money count, the reality of the money, and the number of coins of different values over the LCD mounted on the system as well as on the application. It avoids the fiddle of money with the help of the application which is being handled by the desired authority or trustee of the temple where the system is placed. This is done with assistance with the IoT concept. In short, because of this project temples' donation system will get easier.

II. LITERATURE SURVEY

The paper [1] deals with various techniques of coin recognition systems in respective terms of their accuracy. Also concentrated on various coin recognition approaches have been studied by different researchers based on the image recognition method. It is categorized based on images from both sides as well as a radius of the coin.

The paper [2] deals with different fake currency detection systems. The systems are urbanized using diverse methods and algorithms. The benefits of this study for the reader are that this study provides information about the diverse methods and algorithms used for detecting fake currency. They can compare the detection systems. Detection capability depends on the currency note characteristics of a particular country and the extraction of features.

The paper [3] deals with the color sensor used for the detection of a particular note. If in the case note is fake then this will be detected by using a UV sensor. For better output purposes LCD display monitor is used in order to get all the information simultaneously and in a steady format. Classification of note based on value was done by analyzing statistical properties and connected components. For sorting purpose paper roll mechanism is used.

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The paper [4] deals with the system that uses Image Processing to detect whether the currency is genuine or counterfeit. The system is deliberate entirely using Python programming language. It entails of the steps such asgray scale conversion, segmentation, edge detection, etc. which are achieved using suitable methods.

The paper [5] deals with a reliable coin recognition system that is based on Polar Harmonic Transform. Coins are broadly used by humans at various places like in research organizations, banks, grocery stores, automated weighing machines, vending machines and currency detectors. In these machines, an important process is to recognize the coins accurately and rapidly with the help of a coin recognition system. In this project, the coin recognition system is based on a new algorithm of Polar complex exponential Transform i.e. the type of Polar Harmonic Transform.

III. METHODOLOGY

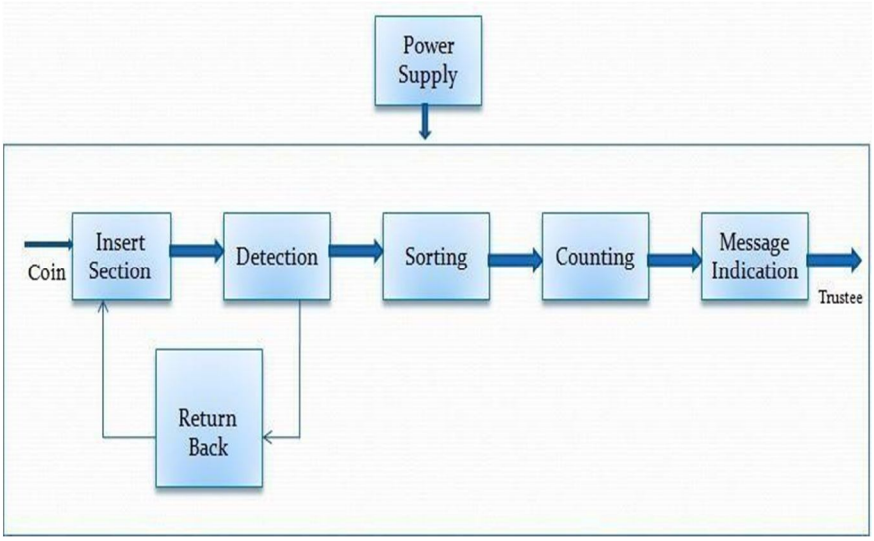


Fig. 1 Basic block diagram of Automatic Coin Sorter for Temples using IoT

The coin is inserted into the coin module where it first detects the reality of the coin. It also detects the value of the coin based on the coin's dimensions, falling time, etc. This pulse information is sent to the controller that reads the value of pulse and matches it with the value in the program and sends pulse to the LCD. After the detection, the coin is forward to the sorting section but here the speed of the coin is high so to control it coin stop mechanism is used. After this process, the coin is forward to the coin separating mechanism which inserts a coin into the respective allotted block. Using the concept of IoT, the system sends messages to the respective person through the application. The whole system is provided with the Power Supply.

IV. RESULT

When the different coins have inserted the pulses of respective coins are detected by the coin detector successfully and these pulses determine the value of the coin. The testing of each module is carried out successfully. The controller then sends a signal to the transmitter to update the status of the display. The coin counting and sorting have been performed successfully. The status of the count and the total count is displayed on the application using the IOT concept successfully.

V. CONCLUSION

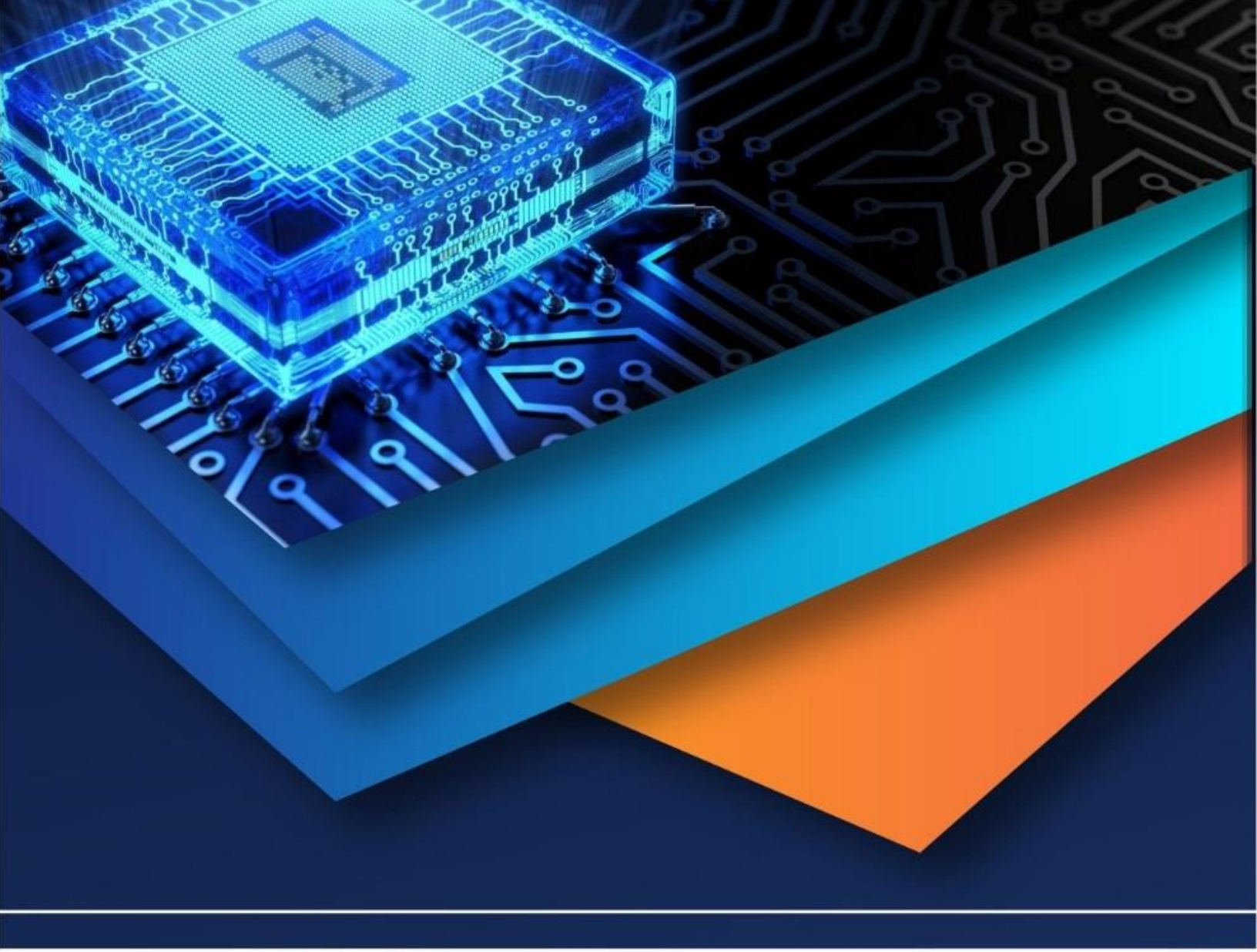
The system "Automatic Coin Sorter for Temples using IoT" is one in every one of the massive steps towards Digital Bharat. The entire operation of this method is performed mechanically victimization electronic elements. The designed system of Automatic Coin Sorter for Temples using IoT can save plenty of your time, workforce and additionally tends to decrease any prospects of miscalculations and prevents the petty of cash. It additionally stores and sends the data relating to calculations similarly as a daily assortment to the several head person through the application. This can be a giant improvement within the donation system. Another hugegood thing about this method is to observe faux coins employing a special method like dimension standardization.

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