Aadhar Based Ration Card Digitization

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Abstract— The project aims that efficient distribution of ration using AADHAR CARD number. The ration distribution system is full of corruption now a days like inaccurate measurement, material theft and fake entries of ration. The main objective of the system is to provide the transparency in ration distribution using Aadhar card number and which provides the data related to customer and distribution of goods to government also.
Key words: AT mega 328 Microcontroller, ESP8266 Wi-Fi Module, Nextion TFT Display, Fingerprint Scanner

I. INTRODUCTION

Today's ration distribution system faces many challenges and lots of issues like illegal smuggling and corruption of goods happens in the ration distribution centre in India. These controversies include irregular measurement of the goods, wrong entries in the manual stock register. Other times the actual goods provided by the government for the distribution does not reach the common people. In our project we have replaced the manual work done in the distribution centers by smart measuring automated electronic and secured device by entering the Aadhar number which is provided by the government.

With the help of microcontroller which measures the goods accurately and updates it in data base periodically about the availability of goods and information regarding the transactions done in a digitalized manner. Here, to have access to the information and data regarding the stock a main data base is created which can be access by both common consumers of that particular locality and by the government main stream invigilators for distribution centers from their head office.

II. LITERATURE SURVEY

[1]Sonali C. parit, Mayuri K. Patti, Rutuja S. Patil: "smart ration distribution system" international journal of research in applied science & engineering technology (IJRASET), volume 6 issue V, may 2018. The Concept of replacing manual work causing irregularities in public Distribution system by automated system which can be installed at the ration shop with ease is proposed. The conventional ration system uses AADHAR No .for user authentication using such a system government would have all required control/monitoring over the transaction at ration shop.As there is lot of corruption involved in PDS such as black.

[2]Jinali Goradia, Sarthak Doshi: "Automated Ration Distribution System", International Conference on Advanced Computing Technologies and Applications (ICACTA-2015).An efficient, accurate and automated technique of ration distribution using RFID based technology, which is an innovative approach in PDS(public distribution system). In these paper the proposed system replace the manual work in public distribution system. The main objective of design system is the automation of ration shop to provide transparency by using RFID no & networking

which is similar to the ATM. This automated ration system replace the conventional ration card system.

[3]Noor Adiba, Saumya Priyam, Vikas Pathak, Shubham Shandilya Sir MVIT Bengaluru: "Automated Ration Distribution System Using RFID/UID and IOT volume-6 Issue-1_2, 2017. In this paper main objective here is to automate the process of distribution. The classical method involves customer to tell the person handling the ration shop outlet, the amount of the commodity he/she needs and the type too. The person working then measure the commodity and it gives it to the customer. In this system they developed an embedded system project where they have the customer to input the amount he requires and the made will automatically collect that much amount in the container.
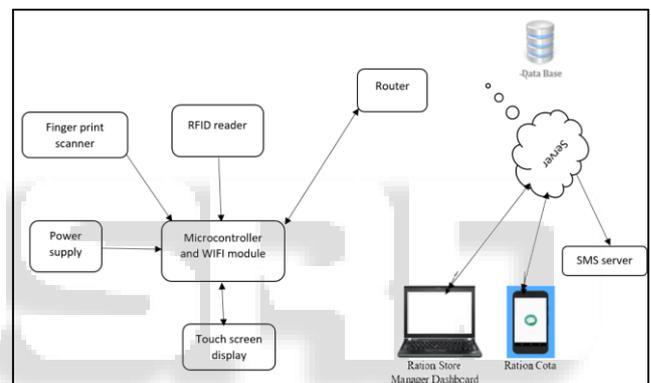
III. BLOCK DIAGRAM

Fig. 1: Block diagram of Aadhar based ration card digitization

IV. BLOCK DIAGRAM DESCRIPTION

This project describes the design and implementation of aadhar based ration digitization system using embedded Technology. By using the ATMEGA 328 the digitization is done. By using the microcontroller the finger print recognition is done and it is also reads the RFID of the customer. Touch screen display process the I/O data using the microcontroller. In this project the database is generated for customer's information is stored by using the aadhar card. This database is handled by the government officer who allots the ration for the peoples. At the time of ration distribution they send the message to the customer and to the ration distributor in a particular area by using the Wi-Fi module esp8266 Wi-Fi module. When customer is entered to the shop it gives its fingerprint by using fingerprint sensor. The whole data related to the customer is displayed on the touch screen display nextion TFT display. And similarly on the dashboard of the ration manager. The customer enter the ration Cota what he wants by using the touch screen display. Then the ration manager allotted ration to the customer if sometimes ration is remaining in Cota allotted to the customer the message is sent back send back to the government officer automatically using the modules. And ration manger does not

get any interference between the customer and the government facility. In these ways we avoid the corruption using the ration digitization system.

V. Algorithm

1) Start
2) Every consumer is provided with RFID card or AADHR CARD which is registered and linked Gov. Database.
3) At the time of ration distribution at ration shop either consumer scan the RFID card or enter the AADHAR NUMBER.
4) After entering the AADHAR NUMBER the information is displayed of that AADHAR owner, which is stored already in database.
5) Finger print recognition process is done.
6) Displays amount of ration quota available.
7) Selection of ration quota things is done by the person.
8) Then the available and remained contents in the ration are informed through message.
9) End.

VI. Conclusions

We believe that this project will bring a change in the present society of India. It will be a contribution to the scheme our country is highly and efficiently undergoing "the Digital India" And also will enhance the scheme of Corruption free India.

And also will bring the transparency in the ration distribution system which will create a smart of digital and corruption free India.

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References

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