# Smart Ration Card System using OTP

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*Abstract -: In existing Ration Card System consists of three types of cards are available, that information is updated manually. This manual process of updating book is tedious and fraudulent. This leads to unfair practices. The retailers practice forgery by not selling the required quantity of goods to the people. So, most of the time corruption is happened. So, we have proposed a Smart Ration Card System using OTP (One Time Password). In proposed system, the OTP contains and an Identification Number of the customer which will point to the database. First user registered in to system with the valid document with unique password, ration card ID, personal details. Documents verify the government officer such as executive majestic. Then the FCI send SMS to user and the shopkeeper and the food grain officer for quantity of food. Food grain officer to deliver the food shopkeeper and shopkeeper deliver to authorized user. Also, we have added the Bachat Gat System to allocate the shop with registration and log in for add the ration card entry. Then send OTP to user mobile number and after the entering OTP, user seen details and view the food quantity, then receipt that has option to save and print account. User seen only 15 minutes to shopkeeper. The bill is displayed and a Short Message Service will be sent to the customer. This Smart Ration Card System will ensure transparency in the system and hence prevent the corruptions and exploitation of masses.*

*Index Terms - Public distribution system (PDS), Fair price shop (FPS), GUI Screen, Automation of ration shop, web enable duration shop.*

## INTRODUCTION

Now a days, ration card is an important document for everyone and it is used for many different fields such as family members details, to get gas connection, it acts as address proof for various purposes like issuing passport, pan card to buy the grocery (sugar, rice, oil, kerosene, etc) from the ration shops. But in this system has two draw backs, first one is there can be ration forgery and second one is it is very time consuming.

Ration Cards are important documents issued by the Indian Admin. It enables user to buy fuel, food, etc. at subsidised rates. These groceries are distributed to the eligible customers at Fair Price Shops (FPS) Ration cards are also as an identity proof. The existing system consists of a ration cards

in book form for three categories. Three categories are based on the criteria given by the admin. The book is updated manually according to the purchase and has to be renewed every year. For purchasing item, the customer is verified using fingerprints. The manual process of updating book is tedious and fraudulent. The retailers practice forgery by not selling the required quantity of goods to the people. On the other hand, customers do not get the deserved quantity of grocery. Many efforts are being taken to improve this system.[1]

Considering all the limitations of the existing system, we have proposed a Smart Ration Card System with Two Factor Authentication using One Time Password. After registration of customer will be provided printed ration card and this registration account along with username and password which will be stored in the database. The customer personal account contains details of name, address, number and names of family members, quantity bought and quantity remaining, etc. will be displayed. For purchase, the customer will further have to enter a One Time Password sent to his registered mobile number using Short Message Service Gateway. One Time Password is used for the verification of the customer.[2]

## RELATED WORK

### Problem Statement

To develop a Smart Ration Card System using OTP that maintains transparency in the ration card system and prevents corruptions and exploitation of masses caused by retailers.

### PROPOSED WORK

In proposed system, the OTP contains and an Identification Number of the customer which will point to the database. First user registered in to system with the valid document with unique password, ration card ID, personal details. Documents verify the government officer such as executive majestic. Then the FCI send SMS to user and the shopkeeper and the food grain officer for quantity of food.

Food grain officer to deliver the food shopkeeper and shopkeeper deliver to authorized user. Also, we have added the Bachat Gat System to allocate the shop with registration and log in for add the ration card entry. Then send OTP to user mobile number and after the entering OTP, user seen details and view the food quantity, then receipt that has option to save and print account. User seen only 15 minutes to shopkeeper. The bill is displayed and a Short Message Service will be sent to the customer.[3]
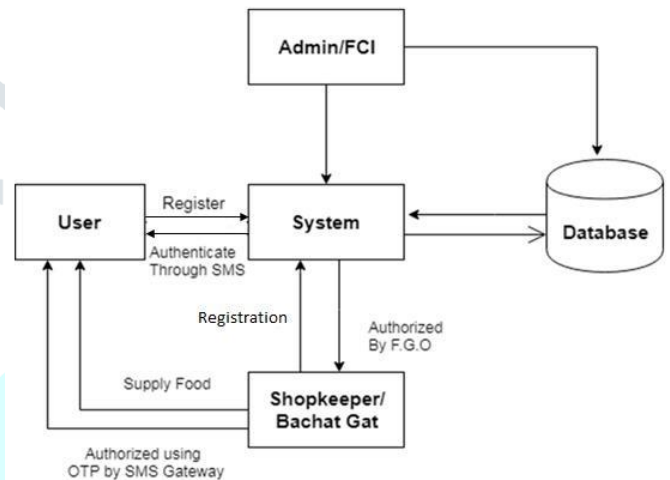
### A. SYSTEM ARCHITECTURE:



Fig. 1: System Architecture

## IV. CONCLUSION

This proposed system will help to avoid the corruption in rationing system to a large extent by providing transparency at each level. As there is no manual data stored in books or register, all the data is stored in database. hence it becomes easy for higher authority to cross check the data at any point. So implementing this will be really helpful to targeted poor people.[4]

For more we would like to add partial payment feature through credit cards, debit cards etc. all transactions online for the ease of the customers because currently we are using the cash payment feature only. In the present system we have used

limited items in the database so in the future new items can also be added in the databases. A mobile app can also be developed so the users need not every time visit the shop for knowing whether the items are available at the shop or not. [5]

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