

# Food Distribution and Management System Using Biometric Technique (Fdms)

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**Abstract.** Food Distribution & Management System (FDMS) mainly developed for enabling government for better implementation of Public Distribution System (PDS) using Biometric Techniques. Corruption has become an inseparable component of our society. It deeply related in functioning of governing bodies and system. Illiteracy lack of awarnace, BPL (below Poverty Line) & APL (Above Poverty Line) has deteriorated the standard of our society and has occurred whelming contribution in the multi functioning of the system. This project (the idea) that we were proposing will not only fight to eliminate the malfunction in current system and monopoly but also encourage direct communication between governing bodies & public. The interface is fully transparent & not only eliminate the inter mediators but also encourage people to fully utilize the resources provided by the government. The project involved interface between government & benefiteres using web technology & cryptography the technology driven method is useful to maintain transparency & account facility in food grain distribution system.

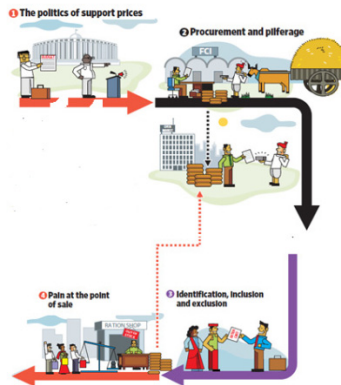
**Keywords:** Database, Web Technology, Cryptography, Biometric ID card.

## 1 Introduction

The main objective of total food grain supply chain computerization in civil Supplies Corporation to check this diversion. The diversion takes place in four main areas.

1. Diversion in the procurement itself.
2. Diversion in the movement of commodities between CSC warehouses.
3. Diversion while transporting to FPS from CSC warehouses.
4. Diversion at the FPS level.

## 2 Objective



### 1) The politics of support prices

The government allocated funds for the public distribution scheme. The scheme aims to provide food grains and commodities to poor people at affordable prices.

### 2) Procurement and pilferage

The government-owned Food Corporation of India procures farm produce.

### 3) Identification, inclusion and exclusion

Ration cards are supposed to be issued to people living below or on the verge of the poverty line.

### 4) Pain at the point of sale

People have difficulty in getting whatever little reaches ration shops. Thus, three step strategies had been adapted in using ICT to check diversion and leakage in the delivery mechanism of PDS. As described below.

**Step 1** Create transparency in operations so that every citizen can very easily know what is happening and what is supposed to happen. Transparency had been created by computerizing all operations involved in PDS and providing all information on web and some vital information through SMS.

**Step 2** Provide most convenient way to give feedback

**Step 3** Build confidence in public that complaints lodged through the system will be attended to.

## 3 Methodology

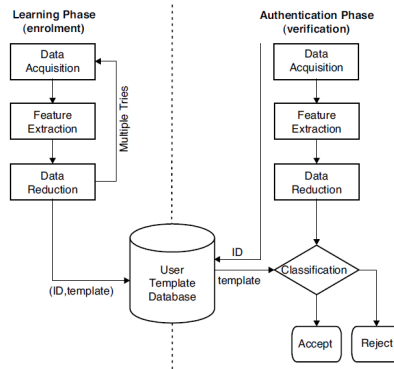
The entire system is so designed to provide easy access to data, records and information paralleling maintaining data integrity and security in all and every aspects. All the information is stored in encrypted format and access is provided to the only authorized person. The entire system is divided into two core process, namely a) Enrolment and Authentication b) authorized access to data.

### 3.1 Verification and Authentication Process

Looking at biometric systems in a more general way will reveal certain things all biometric-based authentication systems have in common. In general such systems work in two modes:

**a. Enrolment mode:** In this mode biometric user data is acquired. This is mostly done with some type of biometric reader.

**b. Authentication mode:** Again biometric user data is acquired first and used by the system to either verify the users claimed identity or to identify who the user is.



Work plan Process Execution Flow

#### Data Acquisition

Fingerprint data is acquired when subjects firmly press their fingers against a glass or polycarbonate plate.

#### Template or File Size

Fingerprint user files are generally between 500 and 1,500 bytes.

#### Accuracy

Some fingerprint systems can be adjusted to achieve a false accept rate of 0.0%. Sandia National Laboratories tests of a top-rated fingerprint system in 1991 and 1993 produced a three-try false reject rate of 9.4% and a crossover error rate of 5%.

### 3.2 Authorized Access to Data

This part deals with manipulation of information and data. It basically consist a list

- a) Personal details
- b) History
- c) Deposited
- d) Withdrawal
- e) Transaction detail:
- f) Next lot Information

- g) Help and guidance
- h) Right to information
- i) Contact Information



Sample Screen snort for Biometric ID Card

## 4 Conclusion

Food distribution and management system tested in “Civil Supplies Corporation” (CSC) .Distribute & manage the food in public Distribution System and information” as described where it used for both procurement and tracking. This shows that Food distribution and management system is ready for real world use in biometric techniques and is to be preferred in communication between government & public & security purpose. Food distribution and management system that can be attacked and factors that you need to be careful of in implementation. Although there is no any complexity that FDMS is more useful. It is also provides food grain, tracking & account transparency. In future this technology can be used in government sectors.

## References

1. Biometric History from National Science & Technology Council (NSTC), Committee handed on National Security, Subcommittee on Biometrics
2. <http://www.ti.com/biometrics>
3. Jain, A.K.: Biometric Recognition: A New Paradigm for Security. Dept of Computer Science & Engineering. Michigan state university, <http://www.bimetric.cse.msu.edu>
4. <http://www.smartcardalliance.org>
5. U.S.Government, Biometric U.S. Visas (May 2004), <http://usembassy.state.gov/posts/ar1/wwwhbiometric.html>
6. Lewis, J.W.: Biometrics for Secure Identity Verification: Trends and Developments. A Thesis Presented in for INSS 690 Professional Seminar Master of Science in Management Information Systems University of Maryland Bowie State University
7. Gupta, P., Bagger, R.K. (eds.): Compendium of e-Governance Initiatives in India. Universities Press, Hyderabad