**SMART SHOPPING CART INFO**

**AIM:**

The main aim of this project is to design computerized framework for paying in shopping centers.

**PURPOSE:**

The purpose of the project is to generate the bill for purchased goods automatically in shopping malls.

**TROLLEY SECTION:**

**RF TRANSMITTER**

**MICRO CONTROLLER**

**(AT89S52)**

 **LCD**

**POWER
SUPPLY**

**RFID**

**READER**

**RFID TAG**

**MAX 232**

**HT12E ENCODER**

**BILLING SECTION:**

**RF RECEIVER**

**KEYPAD**

 **POWER SUPPLY**

**MICRO CONTROLLER**

**(AT89S52)**

**HT12D DECODER**

 **PC**

**Power Supply:**

**Regulator section**

**Filter**

**Circuit**

**Bridge**

**Rectifier**

 **Step Down**

**Transformer**

**DESCRIPTION:**

In this project we are going to implement an automated system for shopping malls. Now a day’s everything is automated to reduce the human efforts and man power. This is the main advantage of embedded systems. In this project, every good is attached with one RFID tag and the shopping trolley is attached with RFID reader. Whenever a person picks a product and place into his/her trolley, then the trolley reads the product information and sends that information to the billing section using RF transmitter. In billing section the information is received by RF receiver and given to microcontroller. Here we have a keypad to remove or add a product amount. The total products and amount for those products are calculated and displayed in PC which makes easy for billing.

**SOFTWARES:**

1. Keil IDE
2. Express PCB
3. EMBEDDED C
4. ISP

**HARDWARES:**

1. Micro Controller(AT89S52)
2. RFID tag
3. RFID Reader
4. RF transmitter
5. RF receiver
6. Keypad
7. LCD
8. Power Supply
9. MAX 232
10. PC

**RESULT:**

By this project we can provide an automatic bill generating system for shopping malls.