**Mobile Charging & Wi-Fi Provision by Coin Insertion.**

**Introduction:-**

The aim of this project is provide a solution for charging of mobile at public places. This is the first application of this system.

Another application is to provide Wi-Fi with this system in public places.

The person, who wants to charge his/her mobile or get a Wi-Fi connection, has to insert a coin and connect his/her mobile with the charger.

Mobile will be charged for a particular time depending upon the number of coins inserted by him/her. As soon as coin sensor detects the coin, it sends a pulse to the microcontroller. The microcontroller turns ON the relay to provide 230V, 50Hz signal to the charging socket and the user can charge his/her mobile phone from the socket. The LCD is used to display the time duration for which the user can charge his/her mobile phone. As the total time gets lapsed, the charging will be stopped. It can be further explained with the help of following block diagram.

This was the first application of the system that provides charging to the mobile for desired time. The second application this system provides the Wi-Fi connection for a specific time.

The working of Wi-Fi connectivity is same as that of mobile charging. The extra feature added to it is when you choose the Wi-Fi option the system asks your mobile number. When you provide your number to the system, it sends you a message that is SMS regarding the Wi-Fi username and password through GSM.-\*

**INPUT-**

Input consists of a solar energy.

**COIN INCERTOR-**

Coin Inserter consists of a circuit which detects the right coin and sends signal to the microcontroller. If the coin inserted is another coin, the system rejects it. The acceptor validates a coin/token based on physical properties such as weight, size and/or magnetic content and then sends a corresponding I/O signal to its output connector.

**KEYBOARD-**

Keyboard is used to insert your choice of charging or Wi-Fi connectivity or both simultaneously. It is also used to give the phone number to the system so as to get the Wi-Fi username and password as SMS in your phone.

**CHARGING OUTPUT-**

Charger used here is power charger. It also consists of many different types of charging cables.

**Wi-Fi OUTPUT**-

Wi-Fi output has a Dongle connected to the system. When you insert the coin, current starts flowing through the circuit and it creates a Wi-Fi zone in a limited area. Message is sent to the inserted mobile phone.

**Screen-**

Screen used here is LED screen. Screen is used to show the options to the user.

**Block Diagram:-**

MICRO CONTROLLER

CHARGER OUTPUT

WI-FI OUTPUT

SCREEN

KEYBOARD

COIN INSERTOR

INPUT

GSM

**Advantages:-**

1. A person can charge his phone on the public places.
2. Charging wire is provided by the system. So no need to carry a charger.
3. Internet connection is also provided.
4. Cost of charging and Internet connection is cheap.
5. Supports “Smart City” organization.
6. System is Eco-friendly as solar energy is used in it.

**Limitations:-**

1. One person can use the system at a time.