#### **DUAL ATM SECURITY SYSTEM**

Ms. Varsha Nambiar

Ms. Priya Chivelkar

Mr. Gaurav Bhate

#### UNDER THE GUIDANCE OF Mr. Sushil Sirsat

#### **Abstract**

Identification and verification of a person today is a common and crucial thing which is used for securing personal information. The traditional methods using ATM card verification or Signature does not issue perfection and reliability. Since, in traditional identification methods With ATM, criminal cases are increasing making financial losses to customers. We can design a fingerprint recognition system for ATM access using ARDUINO. The system uses R305 fingerprint scanner module for customer identification. This system can be employed at any application with enhanced security because of the uniqueness of fingerprints. It is convenient due to its low power requirement and portability.

#### **SMART HOTEL MENU SYSTEM**

Ms. Rutuja Patil

Ms. Shweta Kamble

Mr. Siddhesh Kadam

#### UNDER THE GUIDANCE OF Mr. Sushil Sirsat

#### **Abstract**

Automation systems are increasing in day to day life. Applications like home and industrial automation reduce man power while increasing the efficiency. Here in this restaurant menu ordering system that lets you automate menu for ordering food in restaurants.

In these modern days the number of restaurants is increasing. They also require very fast processing for serving food to the customers. With the increasing number of customers, it would require more man power, since the current situation has become hectic for the restaurants. Also changes in the hardcopy of the menu can't happen.

Using simple components and programming techniques, an automation system was proposed.

### ULTRASONIC BASED ELECTRONICS BRAKING SYSTEM

Mr. Mujeeb Bashir Ahamad Balabhai

Mr. Akshay Tukaram Shelar

Mr. Pranesh Madhukar Narvankar

#### UNDER THE GUIDANCE OF Mr. Sufiyan Bashir Mukadam

#### **Abstract**

Driving is a compulsory activity for most people. People use their car to move from one place to other place. The number of vehicle is increasing day by day. It is produced tacked tightly and risk to accident. Nowadays, the numbers of accident is so high and uncertainly. Accident will occur every time and everywhere and cause worst damage, serious injury and dead. Nowadays Vehicle technology has increased rapidly in recent years, particularly in relation to braking system and sensing system. In parallel to the development of braking technologies, sensors have been developed that are capable of detecting physical obstacles, other vehicles or pedestrians around the vehicle. This development prevents accidents of vehicles using Electronic braking system. An ultrasonic wave emitter provided in a front portion of an automatic braking car producing and emitting ultrasonic waves frontward in a predetermined distance in front of the car. Ultrasonic receiver also formed in a front portion of the car operatively receiving a reflective ultrasonic wave signal as reflected by obstacles positioned within the pre-determined distance in front of the automatic braking car. The reflected wave (detection pulse) was measured to get the distance between the vehicle and the obstacle. Then Arduino is used to control stepper motor to brake intermittently for automatically braking the car for a safe braking purpose. At that time it gives the signal to buzzer and it will on. The LCD display shows the speed and distance of the vehicle

#### SOLAR BASED AUTOMATIC IRRIGATION SYSTEM

Ms. Pooja Sutar

Ms. Rasika Khandke

Ms. Pranali Tambe

#### UNDER THE GUIDANCE OF Mr. Sandeep Dwiwedi

#### **Abstract**

Solar power is absolutely perfect for the use with irrigation systems. Using Solar Panel, the sun energy will be converted to electrical power and saves into batteries. When the sun is rising and shining, the solar panel will absorb the energy of the sun and the energy will be kept in the battery. Soil moisture sensor is placed inside the soil to sense the moisture condition of the soil based on moisture sensor values, the water pump is switched on and off automatically when moisture level of a soil reaches to low the soil moisture sensor is sending a signal to arduin board to start the pump by using stored solar energy. The arduin board completes the above job as it receives the signal from the soil moisture sensor and these signals function as per program stored in ROM of the arduin board. Soil moisture values, condition of the pump, on/off are displayed on 16x2 LCD which is interfaced to the arduino board. The condition of the pump inform to the farmer by sending the SMS through GSM.

## GSM BASED CARBON MONOXIDE MONITORING SYSTEM

Ms. Nishiganda Dileep Kaneri

Ms. Kajal Suresh Bhalekar

Ms. Sajari Kharwatkar

#### UNDER THE GUIDANCE OF Mr. Sufiyan Bashir Mukadam

#### Abstract

In this project we are going to provide a solution for detect PPM level of carbon monoxide gas in the surrounding areas. As use large number of vehicles on the road increasing day by day in the cities as well as villages .It is very important to control level of carbon monoxide but when a high level CO occurs then it may produce heavy disaster. We are using MQ-7 gas sensor which provide maximum resistance at leakage time. When CO gas sensor detected it turns ON the LED also it conveys the message to the LCD display & that displayed message will be given to the subscriber or a particular mobile user. We can set this at different PPM level of CO gas. Depending upon the PPM level we have decided the levels of CO i.e. "Low" and "high".

As soon as the sensor will sense the level of carbon monoxide with the help of the program done in Keil uVision5. The level will be indicated on the LCD screen. Here we are giving the program for LCD interface also so we can monitor the same. The message displayed on the LCD screen is to be retrieved somewhere else for the acknowledgement This SMS will alert that particular areas to overcome the danger effects of CO, that caused even death. Taking proper precautions like increasing the level f greenery, maintenance of old vehicles or the vehicles that use kerosene as the fuel for their vehicles that gives out more CO, to ban these type CO creating effects our project will be helping the society.

# SOLAR ENERGY MEASURMENT & FAULT DTECTION

Mr. Swanand Joshi Mr. Prathemesh Kirve

Mr. Lavehs Pawari Mr. Omkar Shirke

#### UNDER THE GUIDANCE OF Mr. Vinod Salunkhe

#### Abstract

Solar power is absolutely perfect for the use with irrigation systems. Using Solar Panel, the sunenergy will be converted to electrical power and saves into batteries. When the sun is rising and shining, the solar panel will absorb the energy of the sun and the energy will be kept in the battery. Soil moisture sensor is placed inside the soil to sense the moisture condition of the soil based on moisture sensor values, the water pump is switched on and off automatically when moisture level of a soil reaches to low the soil moisture sensor is sending a signal to arduino board to start the pump by using stored solar energy. The arduino board completes the above job as it receives the signal from the soil moisture sensor and these signals function as per program stored in ROM of the arduino board. Soil moisture values, condition of the pump, on/off are displayed on 16x2 LCD which is interfaced to the arduino board. The condition of the pump inform to the farmer by sending the SMS through GSM.

#### **ELECTRONIC VOLUME CONTROL**

Mr. Abhijit More

Mr. Kalpesh Tambe

Mr. Siddesh Vesvikar

#### UNDER THE GUIDANCE OF Mr. Sandeep Dwivedi

#### **Abstract**

Music is an art, entertainment, or other human activity which involves organized and audible sound. Listening music is the third most preferred activity of urban area in India, followed by e-mails and social media, Adults and Children are commonly exposed to loud sound. Listening to a loud music through ear buds connected to devices like iPods of MP3 players can cause hearing loss. The safe expose to sound is 85db; headphones at maximum volume are 105db. Electronics Volume control is a system let you to hear the music to safe volume level. This is done by sensing the surrounding sound, and accordingly volume levels of music are adjusted. Microphones are used to maintain the volume of music with respect to surrounding sounds. It is important that we all take steps to prevent noise.