



Karachi Campus

Discovering Knowledge

BS Software Engineering 1-B

“APPLIED PHYSICS LAB”

Course Code: GSL 114

“PROPOSAL”

Date: 13th- December 2022

Day: Tuesday

Lab Instructor: Ma'am Mubashrah Zaib

Project title:

“Smart Dustbin”

Group Members:

- Ahmad Mustabassir Javed
- Raja Muhammad Hammad
- Rizwan Ansar

Project Scope:

The main purpose of this project is to design a smart dustbin that will help in keeping our environment clean and eco-friendly. Nowadays technologies are getting more advanced day by day. We can take advantage of these technologies to keep our environment clean. This Smart Dustbin is suitable for use in Hospitals, homes, kitchens, and other places which need highly hygienic conditions and less contamination from outside. Smart Dustbin will help to make our environment clean and prevent the spread of infectious diseases.

Project Abstract:

This smart dustbin system is built on a microcontroller-based system having ultrasonic sensors on the dustbin. In this project, we are designing a smart dustbin using Arduino UNO R3, along with an ultrasonic sensor, servo motor, and jumper wire. When all the components are connected, the Smart dustbin system will run. When someone comes near the dustbin lid, the sensor will prompt the motor to activate thus opening the lid and in the same way, when the person is at a particular distance away from the dustbin the sensor will again prompt the motor to activate in reverse direction thus closing the lid.

Teacher Signature: _____

Remarks: _____

Submission Date: _____