

# ABSTRACT

In today era, shopping markets have gained immense popularity among people due to their convenience. however, the time spend in the billing section and during the purchase process can make the overall experience tedious and time consuming. One of the key concerns in shopping malls is vandalism, which requires the deployment of manpower for surveillance and monitoring. Moreover, there are so many different things to choose from in the store, it can be really hard to locate exactly what you're looking for. Here, we propose a system that aims to reduce the time spent in purchasing and in the billing process by utilising a rack that resembles a dispensing machine. The rack has an in-built display powered by Raspberry Pi, allowing customers to easily view all the products and their details. With the ESP32 and DC Motors integration, customers can select their desired products via touchscreen and have them automatically collected at the corner of the rack, eliminating the need for manpower. By employing Firebase integrated with python programming, our system enables customers to generate their own bills without any human assistance. Additionally, it facilitates easier navigation and location of specific products within a large supermarket inventory. Through our intelligent infrastructure, supermarkets can operate efficiently and effectively, providing a seamless shopping experience for customers while addressing security concerns.