**ABSTRACT**

Shopping has become an integral part of today’s society. We can see a huge rush at the mall and supermarkets during weekends, holidays and sales. A queue-based billing system prevails in the existent scenario in most of the developing countries and few developed countries, demanding an intermediary labour intensive or conveyor belt-based billing of products. One of the measures adopted includes RFID tagging of products. However, high cost of both tag and reader makes item-level RFID tagging impractical except for high-value products .Hence a proposal was to come up with and advancement that utilizes the barcode scanners and other related resources such as IOT(internet of things) based shopping carts. The proposed IOT based smart shopping cart which comes together with a barcode scanner and a screen display is designed which would help the customer to pay for their goods in the mall and supermarket without being served by a sales associate. Every product in the supermarket will have a barcode the customer will pick the product scan the barcode with the help of barcode scanner. After scanning the barcode, the concept is designed into a smaller version of the automated self-checkout system on a shopping cart with a user interface screen which allows customers to make payment for items scanned and placed in the cart before leaving the entrance of the store. This is to release pressure during peak hours. The smart cart comes with all the services including scanning an item to check for price and details, also there are other additional features that will be included in the design such as locating an item in the store by typing in the item’s name in the search field on the user interface screen which will automatically show the item’s location and also we can set the budget. The details and the price of the product will be displayed on the touch screen display along with the total bill of the items purchased. This system would also be beneficial for the customer with a certain budget limit and saves long waiting time at the billing counter. Besides, the design also entails a security feedback unit which scrutinizes all the products in the cart. Based on that, discrepancies and falsehood can be alarmed, locking the cart at the very instant. At the database end, flexibility is provided as per the wish of the owner/management unit of the store. It facilitates in monitoring the consumer behaviour, recognizing trends among various brands.