UNIVERSITI TEKNOLOGI MARA
CAWANGAN PULAU PINANG

SMART SHOP SYSTEM (S-SHOP) USING RFID AND IOT

AMERRUDIN BIN DAUD

BACHELOR OF ENGINEERING (HONS) ELECTRICAL AND ELECTRONIC ENGINEERING

Jan 2019

ABSTRACT

Billing system technology nowadays in the market are not very efficiency because the revolution of technology. This is because the conventional method like using a barcode scanner is require more man power and manual system to operate. Besides that, the conventional method, does not store the information like the warranty of the product and the information of buyer. Using the smart shop system using RFID reader and RFID tag, the system will become more efficient. The system consist two main element with is passive RFID tag (125 kHz) and RFID reader (ID-20LA) that similar function with a barcode tag and a barcode scanner. The system had used Espresso Lite V2.0 as a microcontroller and UC00C as UART converter. The system had been complete with Internet of Think (IoT) technique to make sure the system can be operate wirelessly. The system also contain a buzzer that produced "beep" sound as an indicator to make sure the tag had been read by the reader. All the information from the reader will be send to google spreadsheet as a cloud to store the information about the item. Besides that, the system also using a real time tracing. The system had been integrate using Arduino IDE as a platform to link between hardware and software. As a result, all the information had been save in a cloud at google spreadsheet and easy to access to check the warranty item of the client. From test that had been conducted, the system 100% send data to the database without using an internet compare using an internet but the system still efficient using an internet but need some additional future. The system will be help the billing system become more efficient and easy to monitor for the further check.

ACKNOWLEDGEMENT

Alhamdulillah. Thanks to Allah SWT, with his willing that giving me the opportunity to complete the Final Year project which is the title is Smart Shop System (S-Shop) using RFID and IoT. This report was prepared for Faculty of Electrical Engineering, MARA Technology University(UiTM) Pulau Pinang for the student in final year to complete Bachelor Of Engineering (Hons) Electric And Electronic Engineering-EE 200.

I would like to express my deepest thanks to Dr Samihah Binti Abdullah as my supervisor who had guided us in this project. At the same time, I never forget all guidance and support that have be given in all time. Moreover, she had given me a strong motivation to complete the project.

Deepest thanks and appreciation to my beloved father and mother, family members, friends and other cooperation, encouragement, constructive suggestion and support for complete this report, from beginning until end.

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