ABSTRACT

The high development of Indonesian people and the capacity of buying of

Indonesian people which are higher make a need in transportation field more important

where the transportation can help doing your daily activity, for example: bring you to the

place where you want to go. Motorcycle is a primadonna for Indonesian people because its

price can be reached and its flexibility can economize time. Thus, it needs a periodic

treatment every month to check and service the motorcycle in motorcycle workshop

authorized in order to keep the condition of your motorcycle every month and to keep it not

broken which can make your safety threatened. Because of that, the writer makes a

motorcycle detector system using UHF RFID Tag which will be scan by UHF RFID Longa

Range Reader. Thus, the output data represented as User ID read by the reader will be put

into computer database as customer notes and transportation histories.

In this last project, the writer designs identification of customer motorcycle

services system using UHF RFID Long Range Reader. How this tool works is that a

motorcycle which has been mounted UHF RFID Tag passes UHF RFID Long Range

Reader, after that the computer will detect User ID of motorcycle service customer. The

data of the customer will be put into server computer which if the customer will change a

spare part or do the regular service, the mechanic will input the activity of workshop

services whose data are sent to the server. After servicing a motorcycle is done, the

customer pays a transaction and the server will save the transaction data and the history of

customer's motorcycle to the database.

Of measurement and testing of several parameters that produce as much as 660 cm

maximum distance, obstacle distance of UHF RFID Tag maximum of 660 cm, data

receive in the transmitter and the fit between the UHF RFID Long Range Reader, UHF

RFID Tag into the database.

Key words: UHF RFID Long Range Reader, UHF RFID Tag, Database.