

ABSTRACT

Koperasi Galur Murni in Kabupaten Jember has a spesific room which is used as a storage of cooling unit. The storage room itself is connected to a transfer room, which will be crowded of people supplying the fresh milk from the farm at around 06.30 to 09.00 and 15.30 to 17.00. By the crowd at transfer room and the conventional way of storage room security system, lots of risk may happen. Anyone can be easily going to cooling unit room out of the control of employee. Besides, the manual key can be easily duplicated as well, or simply lost.

Seeing the problem above, a security system of Koperasi Galur Murni cooling unit's door in Kabupaten Jember based on VLC is made as a solution. At transmitter end, an equipment of Android based smartphone which is compatible with Tiny Flashlight's morse application is required, while at the receiver end, the requirement is a receiving block equipped with LDR as the censor.

Based on the implementation, testing, and analyzing, the solenoid valve will be pulled (the door will be unlocked) if both the transmitted password is correct and the password is perfectly received by the LDR as well. The maximum range can be reached is 12 cm.

Keywords: VLC, door, solenoid, Tiny Flashlight, LDR, morse