

# ***AUTOMATIC GANG PORTAL PROTOTYPE WITH REMOTE CONTROL USING ENERGY FROM PLTS***

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## ***ABSTRACT***

*Theft occurs when the area is quiet or the level of community busyness with work causes a lack of attention to security in the home area from the dangers of criminal acts of theft. This problem can be overcome by hiring security personnel, but this requires a relatively large cost, because currently the salary of security personnel is not cheap. To maintain the security of the area, a portal is needed that is able to control anyone who can exit or enter the road area. In this study, the researcher will build a portal gate control system using an ESP32 microcontroller using an Internet of Things (IoT)-based telegram application. Which tool can control automatically in certain circumstances such as when it is 9 pm the portal will close, and at 5 am the portal will open. The system can also be controlled via the telegram application by sending command messages to bots that can only be accessed by residents of the area. The energy source for this portal gate is also obtained from the PLTS that has been installed on the system, so that it can save electricity. Based on the results of testing the control system and PLTS circuit, a high success rate of 98% was obtained.*

***Keywords:*** Portal, system control, Telegram, PLTS