

ABSTRACT

COMPUTER-BASED REMOTE CONTROLLING AND MONITORING USING HANDPHONE

By

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As we know that *handphone* (HP) is an electronic communication device which functions are for calling someone, sending and receiving *Short Message Service* (SMS). Usually, features contained in *handphone* such as SMS only used for sending and receiving message from families, friends, and partner. Whereas, SMS also can be applied as remote control, with SMS is its communication media. So, SMS is not only available in communication between two people.

In the experiment of Computer-Based Remote Controlling and Monitoring Using Handphone, content of SMS sent from handphone will be read by computer by giving order *AT command*, that is AT+CNMI. Then, the message that has been detected by computer will be forwarded to PPI and controlled its load depends on the order given by *handphone*. After load execution is done, then sensor will read the lamp condition. Then sensor will give signal back to the computer so that computer can send SMS based on the lamp condition.

The result of this design is that the system can receive an order and control it, suitable with the purpose; to switch on and off the lamp. This controlling system can be applied by using instruction that designed by programmer, in this case using command ON1. This system can monitor of the lamp condition with a message reply from receiver.

Key words: *Handphone* (HP), Modem, *Short Message Service* (SMS), PPI 8255, *AT command*.