

ABSTRACT

The hospital is a place for health facilities that exist within the scope of the community, almost every area has health facilities such as hospitals, apart from hospitals there are clinics that have the same function and purpose, in health facilities there are inpatient rooms where in certain circumstances patients are required to stay overnight so that it can be monitored directly by nurses until conditions improve, hospital staff do not look after the inpatient room directly, when there is an emergency from patients nurses become less responsive in responding to this situation, for this reason a tool concept called Nurse Call is designed which is a solution of these problems, this tool becomes a technological solution to increase efficiency within the scope of health nurses. The aim of this design is to develop a nurse call system that is wireless and integrated, enabling patients to quickly request assistance from nurses or medical personnel and enabling nurses to respond to calls more efficiently. There are 3 buttons in this series of nurse call innovation concepts, where when the patient presses the red button it will call the nurse with an emergency message, then the green button to call the nurse when they need help in the room, and the last button pressed by the nurse when she has come into the room to turn it off the command sent. Testing this prototype was carried out by carrying out experimental simulations in the patient room and received by the server which contained health workers. Notifications on telegrams, sound sensors from buzzers that sound, LEDs that light up, and display messages on the LCD are output when the push button is pressed, each push button will issue a different output, depending on which button is pressed. In conclusion, this design aims to create a nurse call system that is efficient, fast, and integrated with the latest technology. Thus, this system is expected to improve the quality of patient care and ensure a faster response to calls for help.

Keywords: NodeMCU ESP8266, Power Switching, Microcontroller, Hospital, Health, Nurse Call