

COST EFFECTIVE WIRELESS GUESTROOM CONTROL SYSTEM

R.M.S.K. Rajakaruna, S.V.D.A. Sumuditha, W.M.N.M.B. Weerakoon and P.M. Perera

Department of Building Services Technology, University of Vocational Technology, Sri Lanka

roshikadhimal@gmail.com

Abstract: Guest room control systems have become a necessity in the modern hotels since the hotel guests now expect higher level of service. The ability to control the conditions of guest room according to the user requirement is expected by the guests. Therefore guestroom control systems are implemented in many hotels today. In this research a wireless guest room control system was developed where the control communication was done through Wi-Fi technology and cabling was used only to provide power to the devices. This system was installed in an actual room and the lighting and door access system was controlled through this system. The controlling was implemented using a microcontroller with Wi-Fi wireless communication. A touch keypad was also designed as the user interface. The system can be used as a cost effective solution for low budget hotels. The cost of the system was about 30%-40% of the similar systems available in the market. Since the system use wireless technology, it can be installed in an operational hotel with minimum disturbances to the hotel operations, because modification will not be required for the cabling in the guestroom. Furthermore any maintenance work of the system also can be carried out without interrupting the guests. This is one of the main advantages of the wireless guestroom control system since having minimum interruptions to the hotel operation is very critical for the hotels.

Keywords: Guest Room Control, Wireless Communication, Cost Effective, Wi-Fi