IDENTIFICATION AND REMOTE CONTROL OF EXCESS USAGE OF ELECTRICITY WITH SAFETY AND SECURITY SYSTEMS

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Advance home automation systems are built from technologies to solve household related problems. Today household power consumption, security and safety are the most common and serious problems which causes increased rate of electricity bill, theft and domestic accidents. The devices used are Arduino, GSM module, PIR, gas sensors and through load, the consumption of electricity is measured and the highly consumed objects are remotely controlled. Utilizing integrated technological systems in home is one of the most efficient one. Transitioning to a smarter home can improve your control over every aspect of how the house operates, and increase the safety and accessibility of it as well. Additionally, it can reap the benefits of a more efficient home, leading to savings in energy and upkeep costs. The design of the system can monitor and control home appliances remotely, the system allows the user to monitor and control the house appliances via the mobile phone set by sending UART commands in the form of SMS messages and receiving the appliances status. The GSM modem provides the communication media between the user and the system by means of SMS messages.

Keywords—GSM module; PIR sensor; Gas sensor; Load; Arduino

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