ABSTRACT

We analysed green communication for Internet of Things (IoT) devices. With an increase in IoT and smart devices, demands of green communication techniques have become important to reduce CO_2 emission and pollution, exploit environmental conservation and minimize the operational costs and power consumption. In this regard, we studied the basic principles, life cycle, benefits and applications of both IoT and green communication individually. The Green IoT techniques are also analyzed.

In order to analyse green communication for IoT devices, the scenario of green communication implementation in shopping mall is considered. For this purpose, a design of IoT based smart shopping cart for mart by using the green RFID technique is presented. In this application, scanning is done by itself through RFID Reader with less time and power as compared to barcode scanning. The details of products are displayed on the LCD screen. This application provides the facility of an automatic billing system because in this system, bill can generate by itself and no need to stand or wait in long queues. This application reduced the power consumption, CO_2 consumption, manpower, cost, time of shopping, security issues and human labour.