Abstract

Internet of Things (IOT) aims at interfacing different gadgets to the internet web – encouraging human-machine and machine-machine connections offering superior security, console and effectiveness. The concept of IOT is utilized in this model, remote monitoring of energy meter which is intended to overcome the issues in existing Automatic Meter Reading (AMR) system. It spares tremendous human work. A controller integrated with electronic energy meter assist in distant correspondence from the developed android application. This application enables monitoring of bill generation at consumer premises without human intervention and also in visualizing live data consumption and sight energy expended points of interest on daily/monthly basis. In addition, it gives authority to power organizations to seize lenient customers who have extraordinary dues for remote disconnection of the power supply. So IOT based remote AMR framework is more viable methodology than tradition of billing framework.
IOT based Energy Meter Monitoring using ARM Cortex M4 with Android Application

1. A. Sachdeva, S. Chand, “EMC evaluation and analysis of electronic energy meter”, IEEE 1999
2. History of automated meter reading-AMR https://mcodesmart.wordpress.com
5. S. Arun & Dr. Sidappa Naidu, “Design and Implementation of Automatic Meter Reading System Using GSM, ZIGBEE through GPRS” IJARCSSE 2012
10. G. Thavasi Raja, T. D. Sudhakar “Electricity consumption and automatic billing through power line”, IEEE 2007
13. Android programming and application development.android.com /index.html
14. TM4C1294NCPDT microcontroller data sheet
17. OASIS MQTT protocol https://www.oasis-open.org/

Index Terms

Computer Science

Information Sciences

Keywords

Android, AMR, AWS, IOT, MQTT