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## **IOT Based Energy Meter Reading System**

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Abstract: Efficient use of energy plays an important role in the development of smart grid in power systems. Therefore, proper monitoring and control of energy consumption is a key step. The main priority is with smart grid. The existing energy meter system has many problems. One major problem is the lack of full duplex communication. To solve this problem, we propose a smart energy meter based on Internet of Things (lot). The proposed smart energy meter monitors and calculates power consumption using ESP 8266 12E, a Wi-Fi module and uploads it to the cloud, from where the consumer or manufacturer can view the readings. Hence, the energy analysis of the consumers become much easier and more controlled. This system also helps to detect power theft. So, this smart meter helps with home automation using IoT and enabling wireless connectivity, which is a big step towards the digital transformation of India.

Keywords: IOT, Wi-Fi.

## REFERENCES

- Himshekhar Das, L.C.Saikia, "GSM Enabled Smart Energy Meter and Automation of Home Appliances", PP-978-1-4678-6503-1, 2015 IEEE.
- [2]. Ofoegbu Osita Edward, "An Energy Meter Reader with Load Control Capacity and Secure Switching Using a Password Based Relay Circuit", PP-978-1-4799-8311-7, 'Annual Global Online Conference on Information and Computer Technology', IEEE 2014.
- [3]. J. Widmer, Landis," Billing metering using sampled values according IEe 61850-9-2 for substations", IEEE 2014
- [4]. Sahana M N, Anjana S, Ankith S, K Natarajan, K R Shobha, "Home energy management leveraging open IoT protocol stack", PP- 978-1-4673-6670-0, 'Recent Advances in Intelligent Computational Systems (RAICS)', IEEE 2015.
- [5]. Landi,c.: Dipt. Di Ing.dell''Inf, SecondaUniv di Napoli,Aversa,Italy; Merola p.''ARM-based energy management system using smart meter and Web server'', IEEE instrumentation and measurement technology conference binjing, pp.1-5 may 2011.
- [6]. Anitha.k,prathik, "Smart Energy Meter surveillance Using IoT", Institute of Electrical and Electronics Engineers(IEEE), 2019
- [7]. Anitha.k ,prathik, "Smart Energy Meter surveillance Using IoT" ,Institute of Electrical and Electronics Engineers(IEEE), 2019