Internet of Things based Smart Electricity Meters

Abstract

Since energy sources are limited and it has become our need to save as much energy as possible. In this scenario, Smart meter comes into the picture. A Smart meter captures unit consumed in a specific time frame, display results and consequently provide real time inputs to the billing unit. The use of such smart meters has been growing rapidly in recent years. In fact, certain market observers estimate the global market for smart meters will accelerate from $4 billion in 2011 to approximately $20 billion in 2018.[1] Direct U.S. exports of smart meters also have shown solid growth in recent years, although from a small base, rising from an estimated $180 million to $240 million during 2008–13[2]. Smart meters are far better than those electromechanical meters used previously by the customers.

In this paper, we are explaining the concept of smart meters, different types of communication, communication employing PLC, security and frauds detection, cost optimization and data sets.

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Index Terms

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