

A Proposed Framework for Reducing Electricity

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Abstract

Smart homes with smart technologies can provide better insights into saving energy and improving the quality of our life. All connected appliances are Internet of Things (IoT) devices that support applications inside a smart home which produce an amount of data that shows what households are doing during their daily life. IoT and Big Data Analytics (BDA) became the most popular technologies in our smart life that are rapidly affecting all areas of technologies and businesses to increase the benefits for organizations and individuals. This research paper contains a review study for recent papers with different techniques that discusses BDA challenges and benefits of a smart home and its relationship with IoT. Moreover, the research paper also contains a proposed approach with its technique (clustering algorithm) for analysing data to solve the main research problem of the large power crisis in Egypt due to the high electricity consumption. Thus, using associate rule to recommend actions based on these data to reduce electricity consumption in different houses in Egypt based on each inhabitant's interest.

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