

Building energy management

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ABSTRACT

Statistics show that approximate energy usage in a building is 10–20 times more than residential which is around 70–300 kWh/m². The electricity demand is expected to increase triple than current demand in 2030. It is found that total energy demand and produced are not balanced whereby there will be not enough energy to supply for higher demand in the future. This why we need to manage energy properly especially for commercial building. Thanks to technology, now there is no need for building owners to hire energy auditor in order to know how to manage energy in their building. Technology has evolved commercial building into smart building. By installing sensors in the building and make use of Internet of Things technology, the energy can be managed through web or mobile apps. In this chapter, we are going to explain on how building evolved from commercial building to smart building and the development of building energy management by using machine learning and big data analytic approach.

KEYWORDS

Energy usage; Commercial building; Internet of Things; Building energy management

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