

Electricity Theft-Detection in Smart Grids Based on Deep Learning

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Abstract: Utility companies are quite concerned about electricity theft. Individual user power usage is one of the vast amounts of data that the smart grid (SG) system generates. Machine learning and deep learning methods can precisely identify electricity theft customers using this data. We develop a convolutional neural network (CNN) model for automatically detecting electricity theft. This study takes into account experimentation to determine the sequential model's (SM) ideal configuration for categorizing and identifying electricity theft. The precision was up to 0.92. This makes it possible to create high-performance electricity signal classifiers for a variety of applications. Using an SM to extract the data from the electricity consumption dataset and a CNN to design electricity signal classifier models..

Keywords: Deep Learning

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