**Appliances Energy Prediction**

Data driven prediction of energy use of appliances, by **GOKAGGLERS at kaggle**

## About Dataset

### Context

Experimental data used to create regression models of appliances energy use in a low energy building.

### Content

The data set is at 10 min for about 4.5 months. The house temperature and humidity conditions were monitored with a ZigBee wireless sensor network. Each wireless node transmitted the temperature and humidity conditions around 3.3 min. Then, the wireless data was averaged for 10 minutes periods. The energy data was logged every 10 minutes with m-bus energy meters. Weather from the nearest airport weather station (Chievres Airport, Belgium) was downloaded from a public data set from Reliable Prognosis (rp5.ru), and merged together with the experimental data sets using the date and time column. Two random variables have been included in the data set for testing the regression models and to filter out non predictive attributes (parameters).

### Acknowledgements

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Luis M. Candanedo, Veronique Feldheim, Dominique Deramaix, Data driven prediction models of energy use of appliances in a low-energy house, Energy and Buildings, Volume 140, 1 April 2017, Pages 81-97, ISSN 0378-7788, [Web Link].

### Inspiration

Data used include measurements of temperature and humidity sensors from a wireless network, weather from a nearby airport station and recorded energy use of lighting fixtures. data filtering to remove non-predictive parameters and feature ranking plays an important role with this data. Different statistical models could be developed over this dataset.  
Highlights:  
The appliances energy consumption prediction in a low energy house is the dataset content  
Weather data from a nearby station was found to improve the prediction.

Pressure, air temperature and wind speed are important parameters in the prediction.

Data from a WSN that measures temperature and humidity increase the pred. accuracy.

From the WSN, the kitchen, laundry and living room data ranked high in importance.