<http://archive.ics.uci.edu/ml/datasets.html，机器学习数据集，一共373>个数据集

[http://archive.ics.uci.edu/ml/datasets/Appliances+energy+prediction#](http://archive.ics.uci.edu/ml/datasets/Appliances+energy+prediction)，下面电量能耗数据集来源于此

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| **Abstract**: Experimental data used to create regression models of appliances energy use in a low energy building.  在低能耗建筑中，利用实验数据建立了家电能耗的回归模型。 |  |

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| **Data Set Characteristics:** | Multivariate, Time-Series | **Number of Instances:** | 19735 | **Area:** | Computer |
| **Attribute Characteristics:** | Real | **Number of Attributes:** | 29 | **Date Donated** | 2017-02-15 |
| **Associated Tasks:** | Regression | **Missing Values?** | N/A | **Number of Web Hits:** | 6288 |

**Source:**

Luis Candanedo, luismiguel.candanedoibarra '@' umons.ac.be, University of Mons (UMONS).

**Data Set Information:**

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).   
数据集中在10分钟，大约4.5个月。采用ZigBee无线传感器网络对室内温湿度条件进行监测。每个无线节点在3.3分钟左右传输温度和湿度条件，然后将无线数据平均进行10分钟。能量数据每10分钟记录一次m-bus能量表。最近的机场气象站(比利时的Chievres airport)的天气从可靠的预后(rp5.ru)的公共数据集下载，并与使用日期和时间列的实验数据集合并在一起。在测试回归模型的数据集中包含两个随机变量，并过滤出非预测属性(参数)。  
For more information about the house, data collection, R scripts and figures, please refer to the paper and to the following github repository:   
  
[[Web Link]](https://github.com/LuisM78/Appliances-energy-prediction-data)

有关房屋、数据收集、R脚本和数字的更多信息，请参阅本文及以下github储存库:

**Attribute Information:**

date time year-month-day hour:minute:second 日期时间year-month-day小时:分钟:秒  
Appliances, energy use in Wh 电器，能源使用 Wh。  
lights, energy use of light fixtures in the house in Wh 电灯，能源使用的照明装置在房子里在Wh。  
T1, Temperature in kitchen area, in Celsius T1，厨房温度，摄氏温度。  
RH\_1, Humidity in kitchen area, in % 厨房面积的湿度，%。  
T2, Temperature in living room area, in Celsius T2，客厅温度，摄氏温度。  
RH\_2, Humidity in living room area, in % 客厅面积的湿度，%。  
T3, Temperature in laundry room area T3，洗衣房区域温度。  
RH\_3, Humidity in laundry room area, in % 在洗衣房区域的湿度，%。  
T4, Temperature in office room, in Celsius T4，办公室温度，摄氏温度。  
RH\_4, Humidity in office room, in % 办公室的湿度在%。  
T5, Temperature in bathroom, in Celsius T5，浴室温度，摄氏温度。  
RH\_5, Humidity in bathroom, in % 浴室的湿度，%。  
T6, Temperature outside the building (north side), in Celsius T6，建筑物(北侧)温度，摄氏温度。  
RH\_6, Humidity outside the building (north side), in % RH\_6，建筑外湿度(北侧)，%。  
T7, Temperature in ironing room , in Celsius T7，烫衣室温度，摄氏温度。  
RH\_7, Humidity in ironing room, in % 熨烫室的湿度在%。  
T8, Temperature in teenager room 2, in Celsius T8，青少年房间温度，摄氏2度。  
RH\_8, Humidity in teenager room 2, in % RH\_8，湿度在青少年房间2，%。  
T9, Temperature in parents room, in Celsius T9，家长室的温度，摄氏温度。  
RH\_9, Humidity in parents room, in % 父母房间的湿度，%。  
To, Temperature outside (from Chievres weather station), in Celsius 温度(雪弗尔气象站)摄氏温度。  
Pressure (from Chievres weather station), in mm Hg 压力(来自Chievres气象站)，mm Hg。  
RH\_out, Humidity outside (from Chievres weather station), in % RH\_out，室外湿度(来自Chievres气象站)，%。  
Wind speed (from Chievres weather station), in m/s风速(奇弗里斯气象站)。m/s  
Visibility (from Chievres weather station), in km 能见度(来自Chievres气象站)，公里。  
Tdewpoint (from Chievres weather station), Â°C 露点(来自Chievres气象站)，A C。  
rv1, Random variable 1, nondimensional rv1，随机变量1，无量纲。  
rv2, Random variable 2, nondimensional rv2，随机变量2，无量纲。  
  
Where indicated, hourly data (then interpolated) from the nearest airport weather station (Chievres Airport, Belgium) was downloaded from a public data set from Reliable Prognosis, rp5.ru. Permission was obtained from Reliable Prognosis for the distribution of the 4.5 months of weather data.

从最近的机场气象站(Chievres airport，比利时)的每小时数据(然后插值)从可靠的预测rp5.ru的公共数据集下载。对4.5个月的天气数据的分布进行了可靠的预测，获得了许可。

**Relevant Papers:**

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]](http://dx.doi.org/10.1016/j.enbuild.2017.01.083).

**Citation Request:**

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]](http://dx.doi.org/10.1016/j.enbuild.2017.01.083).

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| 特征 | 释义 | 特征 | 释义 |
| Date-time | 日期时间 | T6 | 建筑物北侧 |
| Appliances | 电能使用 | RH\_6 | 建筑物北侧 |
| Lights | 电灯使用 | T7 | 熨衣室 |
| T1 | 厨房温度 | RH\_7 | 熨衣室 |
| RH\_1 | 厨房湿度 | T8 | 青少年房间 |
| T2 | 客厅温度 | RH\_8 | 青少年房间 |
| RH\_2 | 客厅湿度 | T9 | 父母房间 |
| T3 | 洗衣房温度 | RH\_9 | 父母房间 |
| RH\_3 | 洗衣房 | Temperature outside | 室外温度 |
| T4 | 办公室 | Pressure | 室外压力 |
| RH\_4 | 办公室 | RH\_out | 室外湿度 |
| T5 | 浴室 | Wind speed | 室外风速 |
| RH\_5 | 浴室 | Visibility | 能见度 |
|  |  | Tdewpoint | 露点 |