The dataset contains 36733 instances of 11 sensor measures aggregated over one hour (by means of average or sum) from a gas turbine.

The Dataset includes gas turbine parameters (such as Turbine Inlet Temperature and Compressor Discharge pressure) in addition to the ambient variables.

Problem statement: predicting turbine energy yield (TEY) using ambient variables as features.

Attribute Information:

The explanations of sensor measurements and their brief statistics are given below.

Variable (Abbr.) Unit Min Max Mean

Ambient temperature (AT) C Ã¢â‚¬â€œ6.23 37.10 17.71

Ambient pressure (AP) mbar 985.85 1036.56 1013.07

Ambient humidity (AH) (%) 24.08 100.20 77.87

Air filter difference pressure (AFDP) mbar 2.09 7.61 3.93

Gas turbine exhaust pressure (GTEP) mbar 17.70 40.72 25.56

Turbine inlet temperature (TIT) C 1000.85 1100.89 1081.43

Turbine after temperature (TAT) C 511.04 550.61 546.16

Compressor discharge pressure (CDP) mbar 9.85 15.16 12.06

Turbine energy yield (TEY) MWH 100.02 179.50 133.51

Carbon monoxide (CO) mg/m3 0.00 44.10 2.37

Nitrogen oxides (NOx) mg/m3 25.90 119.91 65.29