

README

October 2, 2019

1 CGC Total Power Prediction

1.1 Data Information

1.1.1 Description

The cracked gas compressor (CGC) is the most critical unit in the entire ethylene production facility, It Consisting 5 stages.

1.2 Attribute information

The dataset is time series (10/Jun/2014 - 31/Dec/2017) data of various online sensors and other measured attributes for a CGC unit.

The dataset attributes properties are as follows:

Numer – Name – Data Type – Measurement – Description

0	1st Stage Suction Temperature	quantitative	°C	input variable
1	1st Stage Suction Pressure	quantitati	kg/cm2g	input variable
2	1st Stage Discharge Temperature	quantitative	°C	input variable
3	1st Stage Discharge Pressure	quantitative	kg/cm2g	input variable
4	2nd Stage Suction Temperature	quantitative	°C	input variable
5	2nd Stage Suction Pressure	quantitative	kg/cm2g	input variable
6	2nd Stage Discharge Temperature	quantitative	°C	input variable
7	2nd Stage Discharge Pressure	quantitative	kg/cm2g	input variable
8	3rd Stage Suction Temperature	quantitative	°C	input variable
9	3rd Stage Suction Pressure	quantitative	kg/cm2g	input variable
10	3rd Stage Discharge Temperature	quantitative	°C	input variable
11	3rd Stage Discharge Pressure	quantitative	kg/cm2g	input variable
12	4th Stage Suction Temperature	quantitative	°C	input variable
13	4th Stage Suction Pressure	quantitative	kg/cm2g	input variable
14	4th Stage Discharge Temperature	quantitative	°C	input variable
15	4th Stage Discharge Pressure	quantitative	kg/cm2g	input variable
16	5th Stage Suction Temperature	quantitative	°C	input variable
17	5th Stage Suction Pressure	quantitative	kNm3/hr	input variable
18	5th Stage Discharge Temperature	quantitative	°C	input variable
19	5th Stage Discharge Pressure	quantitative	kg/cm2g	input variable
20	1st Stage Discharge Flow	quantitative	kNm3/hr	input variable
21	3rd Stage Discharge Flow	quantitative	kNm3/hr	input variable
22	5th Stage Discharge Flow	quantitative	kNm3/hr	input variable

23	C3 Splitter Purge to 4th Stage Suction	quantitative	Nm3/hr	input variable
24	C2 Splitter Purge to 5th Stage Suction	quantitative	Nm3/hr	input variable
25	CW Supply Temperature	quantitative	°C	input variable
26	CW Flow to Olefins	quantitative	tons/hr	input variable
27	CW Pressure	quantitative	kg/cm2g	input variable
28	Compressor Speed	quantitative	rpm	input variable
29	UHP Steam Flow to KT-1	quantitative	tons/hr	input variable
30	UHP Steam Pressure	quantitative	kg/cm2g	input variable
31	UHP Steam Temperature	quantitative	°C	input variable
32	HP Steam Extraction Flow from KT-1	quantitative	tons/hr	input variable
33	HP Steam Extraction Pressure	quantitative	kg/cm2g	input variable
34	HP Steam Extraction Temperature	quantitative	°C	input variable
35	E-24 PG Inlet Temperature	quantitative	°C	input variable
36	Total Power	quantitative	MW	output variable
37	DateTime	DateTime	Date & H:M:s	input variable