



Contains the responses of a gas multisensor device deployed on the field in an Italian city. Hourly responses averages are recorded along with gas concentrations references from a certified...

Dataset Characteristics

Multivariate, Time-Series

Associated Tasks

Regression

Instances

9358

Subject Area

Computer Science

Feature Type

Real

Features

15

Dataset Information

Additional Information

The dataset contains 9358 instances of hourly averaged responses from an array of 5 metal oxide chemical sensors embedded in an Air Quality Chemical Multisensor Device. The device was located on the field in a significantly polluted area, at road level, within an Italian city. Data were recorded ...

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Has Missing Values?

Yes

Introductory Paper

On field calibration of an electronic nose for benzene estimation in an urban pollution monitoring scenario

By S. D. Vito, E. Massera, M. Piga, L. Martinotto, G. Francia. 2008 Published in Sensors and Actuators B: Chemical

Variables Table

Variable Name	Role	Туре	Description	Units	Missing Values
Date	Feature	Date			no
Time	Feature	Categorical			no
CO(GT)	Feature	Integer	True hourly averaged concentration CO in mg/m^3 (reference analyzer)	mg/m^3	no
PT08.S1(CO)	Feature	Categorical	hourly averaged sensor response (nominally CO targeted)		no
NMHC(GT)	Feature	Integer	True hourly averaged overall Non Metanic HydroCarbons concentration in microg/m^3 (reference analyzer)	microg/m^3	no
C6H6(GT)	Feature	Continuous	True hourly averaged Benzene concentration in microg/m^3 (reference analyzer)	microg/m^3	no
PT08.S2(NMHC)	Feature	Categorical	hourly averaged sensor response (nominally NMHC targeted)		no
NOx(GT)	Feature	Integer	True hourly averaged NOx concentration in ppb (reference analyzer)	ppb	no
PT08.S3(NOx)	Feature	Categorical	hourly averaged sensor response (nominally NOx targeted)		no
NO2(GT)	Feature	Integer	True hourly averaged NO2	microg/m^3	no

Variable Name	Role	Туре	Description	Units	Missing Values
			concentration in microg/m^3 (reference analyzer)		
PT08.S4(NO2)	Feature	Categorical	hourly averaged sensor response (nominally NO2 targeted)		no
PT08.S5(O3)	Feature	Categorical	hourly averaged sensor response (nominally O3 targeted)		no
Т	Feature	Continuous	Temperature	°C	no
RH	Feature	Continuous	Relative Humidity	%	no
АН	Feature	Continuous	Absolute Humidity		no
			Rows per page 25	0 to 15 o	f 15 〈 >

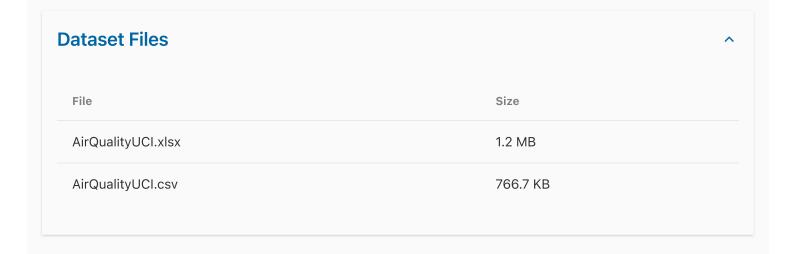
Additional Variable Information

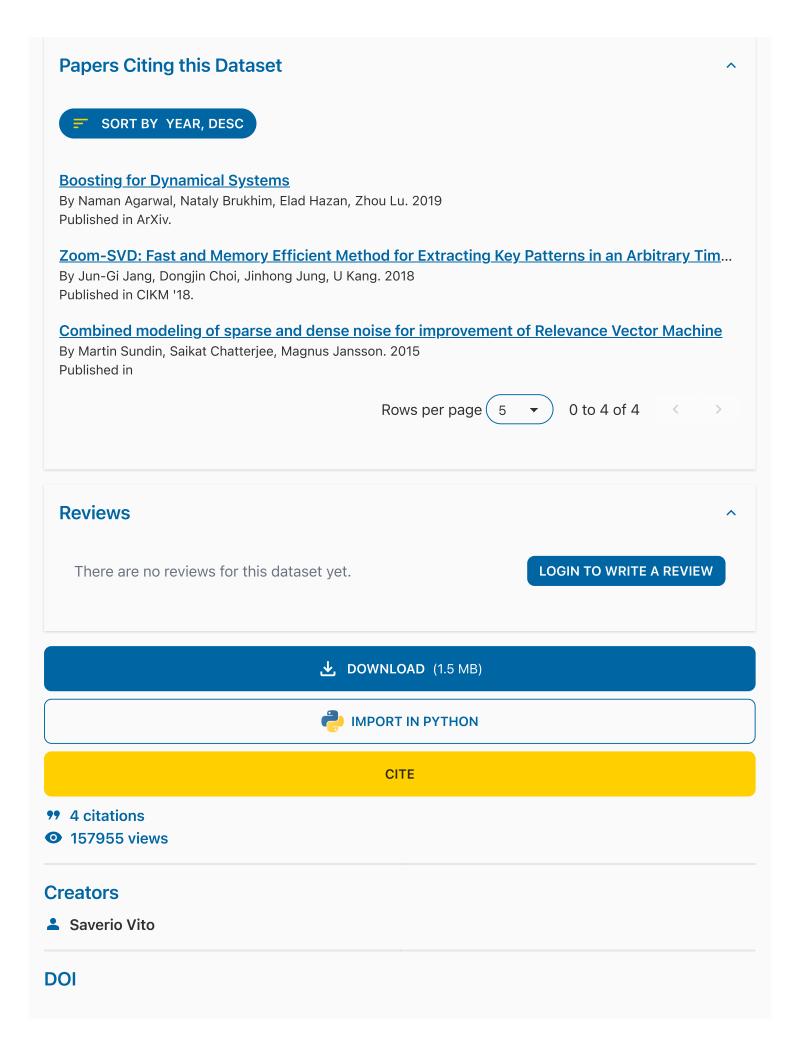
0 Date (DD/MM/YYYY)

1 Time (HH.MM.SS)

2 True hourly averaged concentration CO in mg/m^3 (reference analyzer)...

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10.24432/C59K5F

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