

laboratory testing

data preprocessing

training/testing

post processing

plant

previous healthy data

new data

remove idle sensors

clean data

correlation matrix

PCA:

1- data standardization

**2- covariance matrix
calculation**

3- PCs projections

**4- PCs selections through
explained variance analysis**

training

save

trained
models

testing

load

MAE

error
derivative

anomaly
condition

not met

exceeded

