**Mill-2**

df = df[df.index > '2022-03-01 00:00:00']

xgb = XGBRegressor(n\_estimators=20)

R2 of Train: 0.9419713783771428

Mean absolute Error: 0.16960366045131647

Mean square Error: 0.06872381320819237

RMSE: 0.26215227103382566

Correlation Test: 0.9706494198406708

----------------------------------------------------------------------------

R2 of Test: 0.5383105703990871

Mean absolute Error: 0.3004132321884816

Mean square Error: 0.20736321406002692

RMSE: 0.4553715121305097

Correlation Test: 0.7569157404754928

**Mill-3**

df = df[df.index > '2022-03-01 00:00:00']

xgb = XGBRegressor(n\_estimators=20)

feature\_names = {'Ore', 'WaterMill', 'WaterZumpf', 'PressureHC', 'MotorAmp',

'DensityHC', 'PulpHC',

'Grano', 'Daiki', 'Shisti'target\_name = 'Cidra200'}

----------------------------XGBRegressor---------------------------

R2 of Train: 0.9082103689546728

Mean absolute Error: 0.19252368246092544

Mean square Error: 0.08280756863293096

RMSE: 0.287763042507079

Correlation Test: 0.9534395539416386

----------------------------------------------------------------------------

R2 of Test: 0.6706064211452822

Mean absolute Error: 0.5900160823688723

Mean square Error: 0.5713352369050079

RMSE: 0.7558672085128497

Correlation Test: 0.8850394892399739

**Mill-7**

df = df[df.index > '2022-03-01 00:00:00']

xgb = XGBRegressor(n\_estimators=20)

feature\_names = {'Ore', 'WaterMill', 'WaterZumpf', 'PressureHC', 'MotorAmp',

'DensityHC', 'PulpHC',

'Grano', 'Daiki', 'Shisti'target\_name = 'Cidra200'}

----------------------------XGBRegressor---------------------------

R2 of Train: 0.9078188557894308

Mean absolute Error: 0.31269342246195253

Mean square Error: 0.3643202415678028

RMSE: 0.6035894644274391

Correlation Test: 0.9538168447511378

----------------------------------------------------------------------------

R2 of Test: 0.4384996174725081

Mean absolute Error: 0.8095940721676232

Mean square Error: 1.0281600958927934

RMSE: 1.0139822956505669

Correlation Test: 0.8087682593177287

**Mill-8**

df = df[df.index > '2022-03-01 00:00:00']

xgb = XGBRegressor(n\_estimators=20, max\_depth=100, eta=0.1, subsample=0.1, colsample\_bytree=0.7)

feature\_names = {'Ore', 'WaterMill', 'WaterZumpf', 'PressureHC', 'MotorAmp',

'DensityHC', 'PulpHC',

'Grano', 'Daiki', 'Shisti'

target\_name = 'Cidra200'}

----------------------------XGBRegressor---------------------------

R2 of Train: 0.9308167376691906

Mean absolute Error: 0.1545756390437238

Mean square Error: 0.05000478236756645

RMSE: 0.22361749119325716

Correlation Test: 0.9820768937338038

----------------------------------------------------------------------------

R2 of Test: 0.7108157508195356

Mean absolute Error: 0.2675760697399394

Mean square Error: 0.12729427274689614

RMSE: 0.3567832293520761

Correlation Test: 0.8812291692990577

**Mill-8 - density**

df = df[df.index > '2022-03-01 00:00:00']

xgb = XGBRegressor(n\_estimators=20, max\_depth=100, eta=0.1, subsample=0.1, colsample\_bytree=0.7)

feature\_names = {'Ore', 'WaterMill', 'WaterZumpf', 'PressureHC', 'MotorAmp',

'PulpHC',

'Grano', 'Daiki', 'Shisti'

target\_name = 'DensityHC'}

----------------------------XGBRegressor---------------------------

R2 of Train: 0.9593235210639116

Mean absolute Error: 0.21410956532740616

Mean square Error: 0.17062669682991602

RMSE: 0.41306984497771804

Correlation Test: 0.9899608346064495

----------------------------------------------------------------------------

R2 of Test: 0.8991419192702529

Mean absolute Error: 0.6107649803925298

Mean square Error: 0.9387628710639798

RMSE: 0.9688977608932636