

importing the libraries

In [26]:

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

importing dataset

In [27]:

```
df=pd.read_csv('Combined_Cycle_Power_Plant.csv')
```

In [28]:

```
X=df.iloc[:, :-1].values
Y=df.iloc[:, -1].values
```

In [29]:

```
Y=Y.reshape(len(Y),1)
```

train and split the data

In [30]:

```
from sklearn.model_selection import train_test_split
x_train,x_test,y_train,y_test=train_test_split(X,Y,test_size=0.2,random_state=0)
```

Feature Scaling

In [31]:

```
from sklearn.preprocessing import StandardScaler
ss_x=StandardScaler()
ss_y=StandardScaler()
x_train=ss_x.fit_transform(x_train)
y_train=ss_y.fit_transform(y_train)
```

In [32]:

```
from sklearn.svm import SVR
```

In [33]:

```
svm=SVR(kernel='rbf')
```

In [34]:

```
svm.fit(x_train,y_train)
```

C:\Users\sanja\anaconda3\lib\site-packages\sklearn\utils\validation.py:1111:
DataConversionWarning: A column-vector y was passed when a 1d array was expected. Please change the shape of y to (n_samples,), for example using ravel().

```
y = column_or_1d(y, warn=True)
```

Out[34]:

SVR()

In a Jupyter environment, please rerun this cell to show the HTML representation or trust the notebook.

On GitHub, the HTML representation is unable to render, please try loading this page with nbviewer.org.

In [36]:

```
y_pred = ss_y.inverse_transform(svm.predict(ss_x.transform(x_test)).reshape(-1,1))
np.set_printoptions(precision=2)
print(np.concatenate((y_pred.reshape(len(y_pred),1), y_test.reshape(len(y_test),1)),1))
```

```
[[434.05 431.23]
 [457.94 460.01]
 [461.03 461.14]
 ...
 [470.6 473.26]
 [439.42 438. ]
 [460.92 463.28]]
```

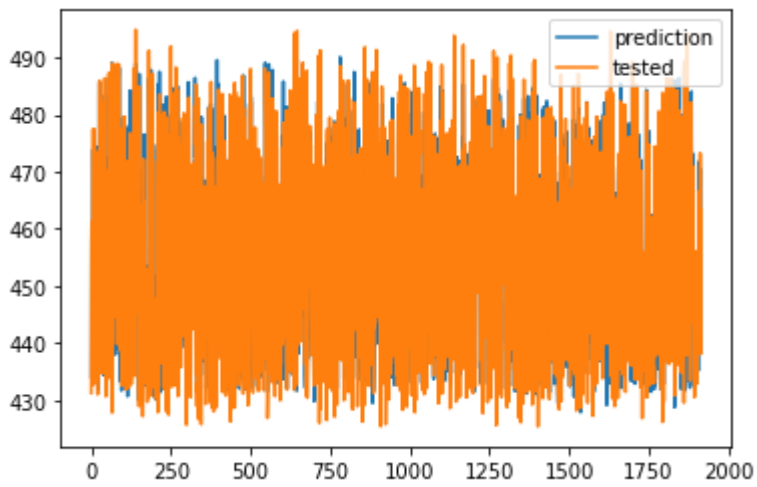
In [42]:

```
from sklearn.metrics import r2_score,mean_absolute_error as mae,mean_squared_error as mse
print(r2_score(y_pred,y_test))
print(mae(y_pred,y_test))
print(np.sqrt(mse(y_pred,y_test)))
```

```
0.946237918859681
2.9951783924513222
3.8969776670879215
```

In [46]:

```
plt.plot(y_pred)
plt.plot(y_test)
plt.legend(['prediction', 'tested'])
plt.show()
```



In []: