Rainfall_MeteoStation_Ydroussa_Samos

October 3, 2017

1 Post-processing of the meteorological data

Here we look at the rainfall data obtained from the meteorological station of Ydroussa

Meteorological station's coordinates
X,Y in EGSA 87
X,Y in WGS 84
Height

```
In [1]: import pandas as pd
        %matplotlib inline
        data = pd.read_csv ('Rainfall_meteostation_Ydroussa_year.csv',
                            header=0,
                            index_col='Year',
                            decimal=',')
        data.head(n=10)
```

```
Out[1]:          Ydroussa
        Year
        1986-87     571.6
        1987-88     947.9
        1988-89     832.3
        1989-90     860.1
        1990-91    1261.9
        1991-92     571.5
        1992-93     665.5
```

```
In [2]: data.head(n=10)
```

```
Out[2]:          Ydroussa
        Year
        1986-87     571.6
        1987-88     947.9
        1988-89     832.3
        1989-90     860.1
        1990-91    1261.9
        1991-92     571.5
        1992-93     665.5
```

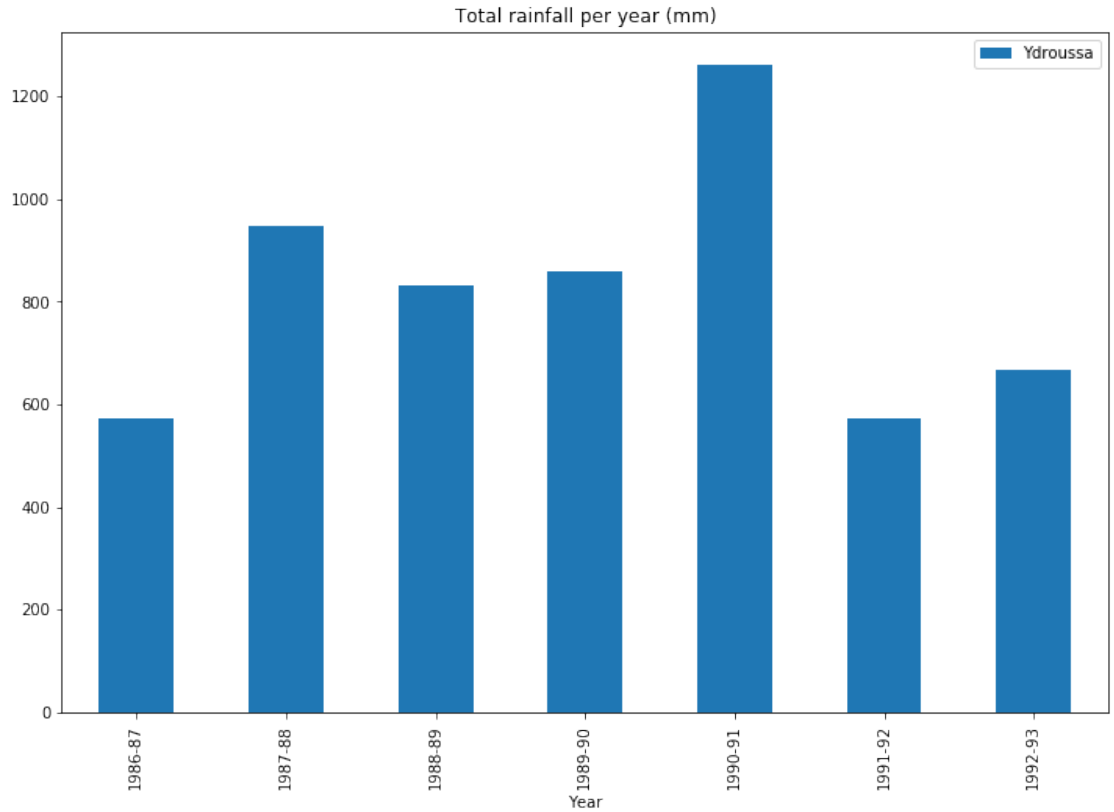
```
In [3]: # Run some basic statistics for the dataset
        data.describe()
```

```
Out[3]:           Ydroussa
        count     7.000000
        mean    815.828571
        std     245.151849
        min     571.500000
        25%     618.550000
        50%     832.300000
        75%     904.000000
        max    1261.900000
```

Data set of Ydroussa meteorological station includes total rainfall (mm) for 7 hydrological years (count).

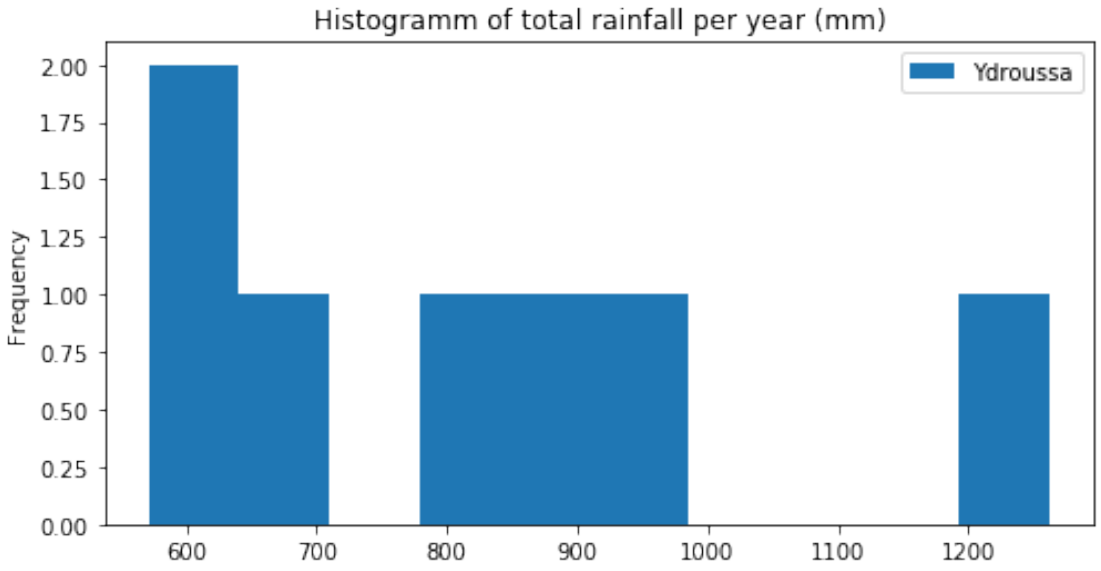
```
In [4]: # Figure of the total rainfall per year (mm)
        data.plot.bar(title='Total rainfall per year (mm)',figsize=(12,8))
```

```
Out[4]: <matplotlib.axes._subplots.AxesSubplot at 0x7f059985d310>
```




```
In [5]: # Figure of the histogramm of the total rainfall per year (mm)
        data.plot.hist(title = 'Histogramm of total rainfall per year (mm)',figsize=(8,4))
```

Out[5]: <matplotlib.axes._subplots.AxesSubplot at 0x7f05976fd9d0>



1.0.1 We get the following data:

1.0.2 Max dry season = 571.5 mm at hydr. year 1986-87

1.0.3 Max wet season = 1261.9 mm at hydr. 1990-91

1.0.4 Statistics calculated from 7 hydrological years (mm)

Type
count
mean
std
min
25%
50%
75%
max