Rainfall_MeteoStation_Karlovassi_Samos-02

October 3, 2017

1 Post-processing of the meteorological data

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

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

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In [9]: import pandas as pd
        %matplotlib inline
        data = pd.read_csv ('Rainfall_meteostation_Karlovassi_year.csv',
                            header=0,
                            index_col='Year',
                            decimal=',')
```

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In [7]: data.head(n=40)
```

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Out[7]:          Karlovassi
        Year
        1950-51       882.4
        1951-52      1220.5
        1952-53      1176.0
        1953-54       834.5
        1954-55      1366.5
        1955-56      1272.5
        1956-57       626.5
        1957-58       730.0
        1958-59       711.2
        1959-60      1042.5
        1974-75       954.0
        1975-76      1001.0
        1976-77       771.0
        1977-78       978.0
        1979-80       989.0
        1980-81      1005.0
        1981-82      1309.0
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1982-83        713.0
1983-84       1220.0
1984-85        974.0
1985-86        798.0
1986-87        695.0
1987-88        812.0
1988-89        616.0
1989-90        648.0
1990-91        877.0
1991-92        569.0
1992-93        756.0
1993-94        754.0
1996-97        623.0
1997-98        963.0
1998-99       1180.0
1999-00        515.0
2001-02       1164.0
```

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

Out[3]:   Karlovassi
        count   34.000000
        mean   904.311765
        std   233.374754
        min   515.000000
        25%   717.250000
        50%   879.700000
        75%   1033.125000
        max   1366.500000

Data set of Karlovassi meteorological station includes monthly rainfall (mm) for 34 hydrological years (count).
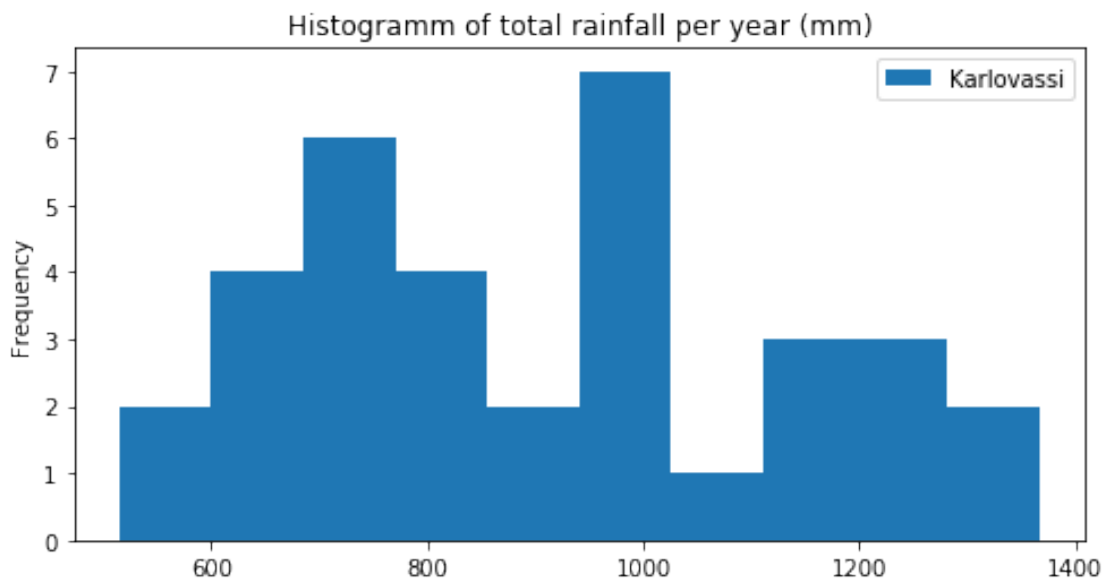
In [4]: *# Figure of the total rainfall per year (mm)*
        data.plot.bar(title='Total rainfall per year (mm)',figsize=(12,8))

Out[4]: <matplotlib.axes._subplots.AxesSubplot at 0x7fd1532713d0>

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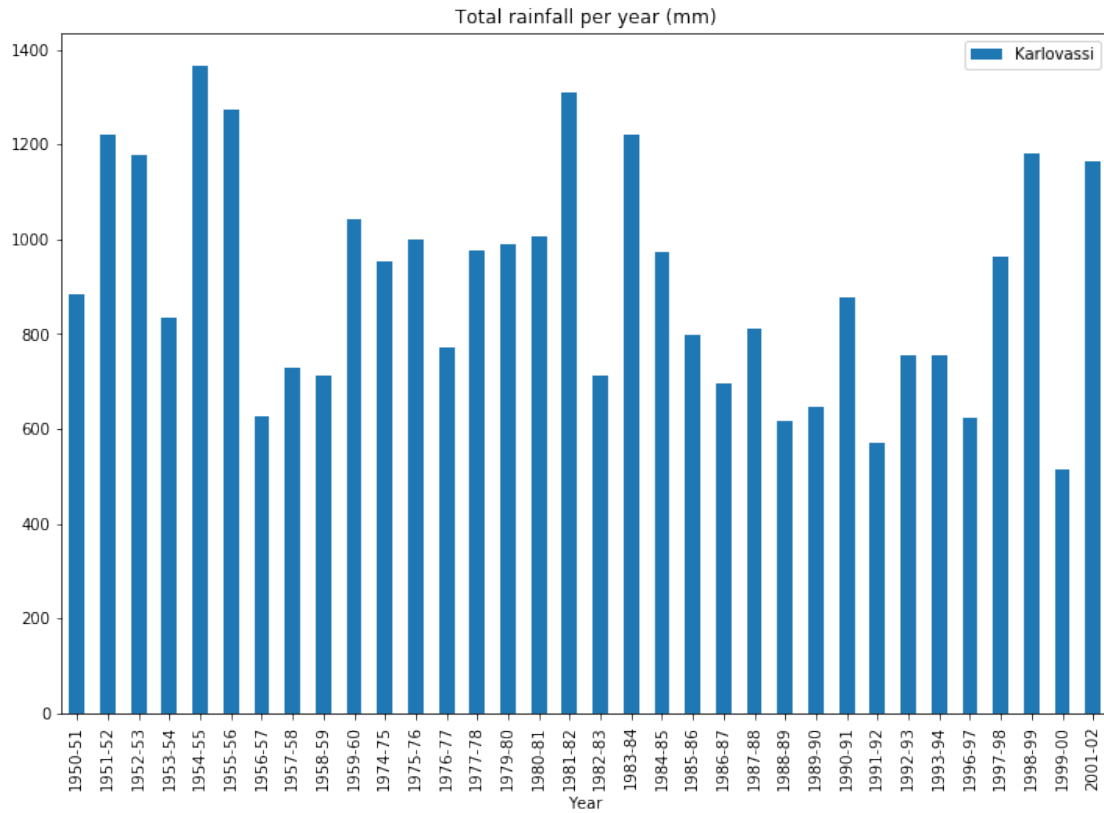
In [5]: # Figure of the histogramm of the total rainfall per year (mm)
        data.plot.hist(title = 'Histogramm of total rainfall per year (mm)',figsize=(8,4))

Out[5]: <matplotlib.axes._subplots.AxesSubplot at 0x7fd1805daad0>

Histogramm of total rainfall per year (mm)

2 We get the following data:

3 Max dry season = 515 mm at hydr. year 1999-00,

4 Max wet season = 1366.5 mm at hydr. year 1954-55

5 Statistics calculated from 34 hydrological years (mm)

In [ ]: