In [1]:
```
import plotly as py
import plotly.graph_objs as go
import plotly.io as pio
import numpy as np
import math
from numpy import genfromtxt
import os

totalN = 20
dataImport = 'C:\\Users\\OndrejSpetko\\Desktop\\School\\MED7\\HRV-tracker\\Breathing\\SerialListener\\Data\\Precision\\'
```

In [11]:
```
#Average
coefFSR = 0.0
coefIR = 0.0
total = 0;
for x in range(totalN):
    n = str(x+1)
    if os.path.exists(dataImport+n+'.txt'):
        temp = genfromtxt(dataImport+n+'.txt', delimiter=',')
        coefFSR += np.var(temp, axis=0)[0]
        coefIR += np.var(temp, axis=0)[1]
        total += 1
    else:
        print(n+" does not exist")
coefFSR /= totalN
coefIR /= totalN
total, coefFSR, coefIR
```

Out[11]: (20, 6.777008890938951, 86.19370423044924)

In [13]:
```
#Plot average
corr1 = coefFSR
corr2 = coefIR
data2 = [go.Bar(
            x=['FSR', 'IR'],
            y=[corr1, corr2],
            text=[corr1, corr2],
            textposition = 'auto',
)]

layout = go.Layout(
    title='Mean variance of sensors across '+str(total)+' samples',
)

fig = go.Figure(data=data2, layout=layout)
py.offline.plot(fig, filename='Correlation.html')
```

Out[13]: 'file://C:\\Users\\OndrejSpetko\\Desktop\\School\\MED7\\HRV-tracker\\Breathing\\PostProcessing\\Python\\Bar.html'