Measurements

March 16, 2022

1 PARAMETERS

```
HBox(children=(Label(value='Sample name :'), Text(value='test',␣
↪placeholder='Custom Name')))
```

```
HBox(children=(Label(value='Measure duration [s] :'), parameter(value=3.0,␣
↪continuous_update=True, step=0.1)))
```

```
HBox(children=(Label(value='Load resistance [Ohms] :'), parameter(value=300000.
↪0, continuous_update=True, step…
```

```
HBox(children=(Label(value='Nombre of periods [1] :'), parameter(value=5.0,␣
↪continuous_update=True, step=1.0))…
```

```
HBox(children=(Label(value='Circuit resistance [Ohms] :'), parameter(value=1.0,␣
↪continuous_update=True, step=1…
```

```
HBox(children=(Label(value='Maximum frequency for analysis: [Hz] :'),␣
↪parameter(value=100.0, continuous_update…
```

```
Button(description='Save parameters', style=ButtonStyle())
```

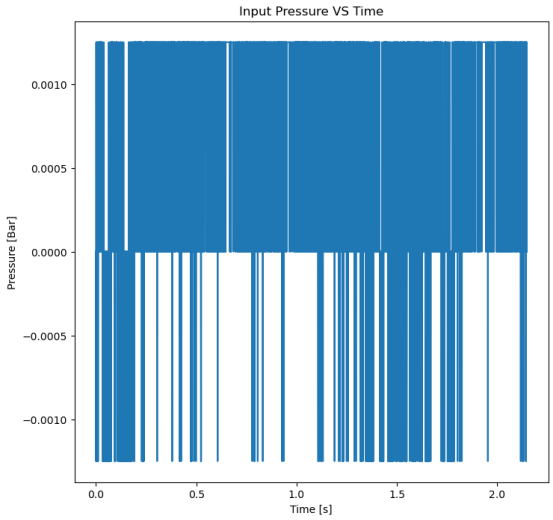
```
Output()
```

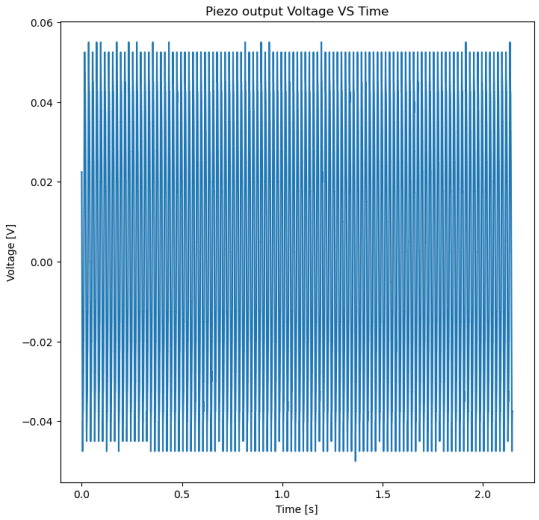
```
Sample name: test
```

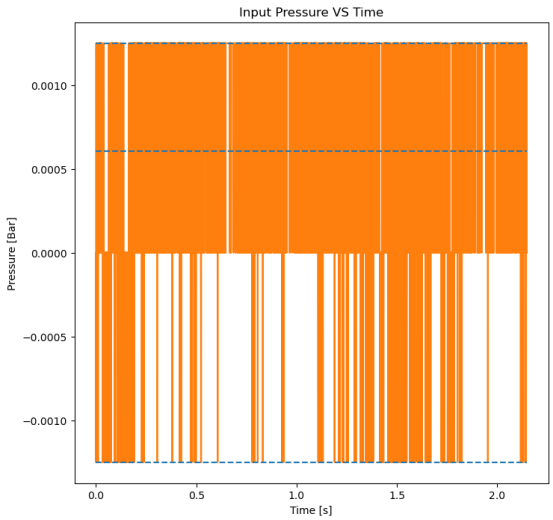
	Parameter	Value	Unit
0	Sample name	test	
1	Measure duration	3.0	[s]
2	Rload	300000.0	[Ohms]
3	Nb Periods	5.0	[1]
4	R Circuit	1.0	[Ohms]
5	Max Frequency	100.0	[Hz]

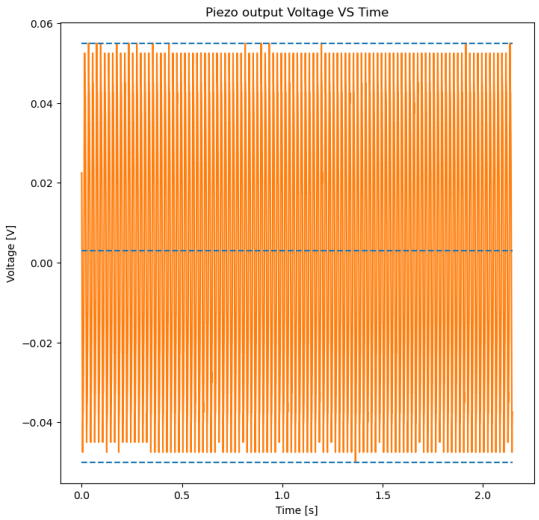
2 PRESSURE AND VOLTAGE MEASUREMENTS

```
The input frequency is:  0.93 Hz
```



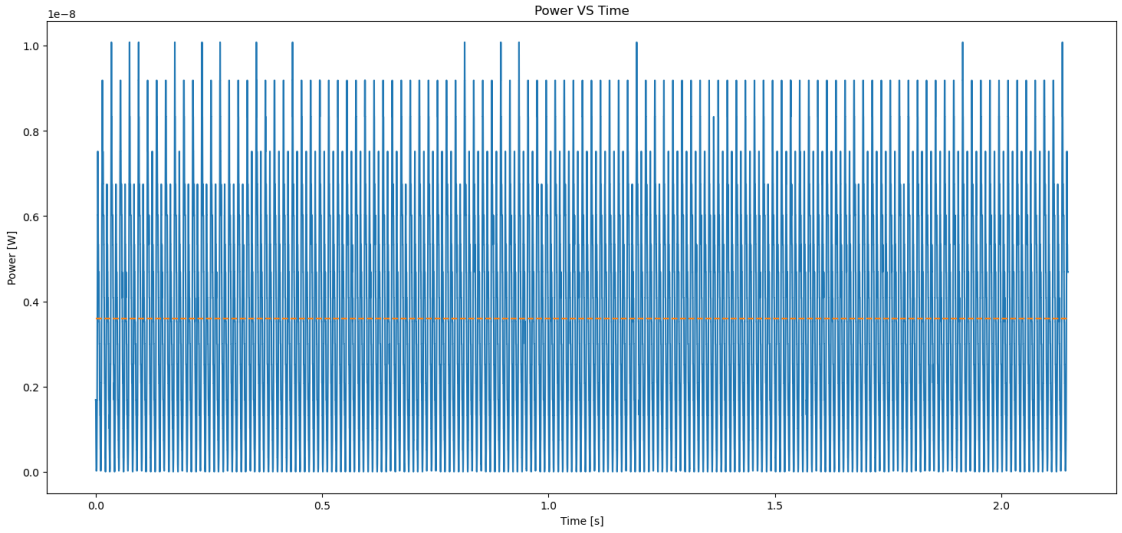






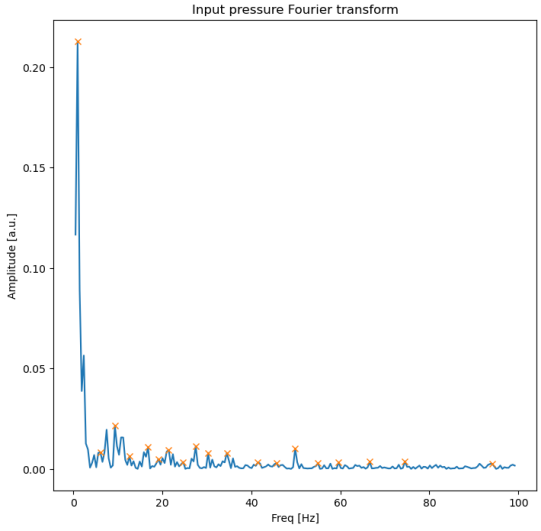
	Variable	Min	Max	Peak to peak	Mean	Mean of absolute value
0	Pressure [Bar]	-1.25e-03	1.25e-03	2.50e-03	6.07e-04	7.02e-04
1	Voltage [V]	-5.00e-02	5.50e-02	1.05e-01	3.02e-03	2.98e-02

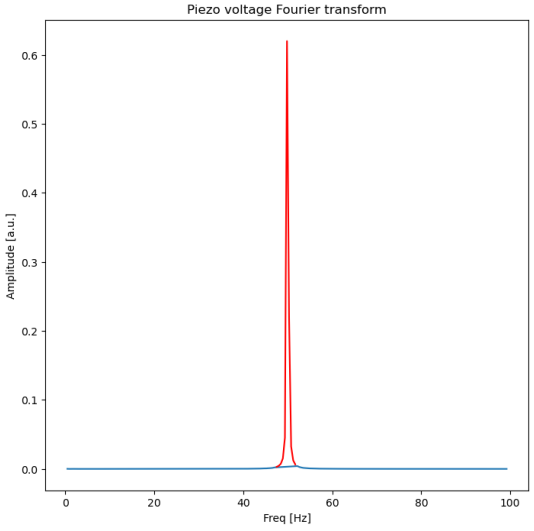
3 POWER



`Mean power: 3.60e-09 [W]`

4 FREQUENCY ANALYSIS





4.1 Voltage frequency peaks

Empty DataFrame Columns: Index(['Freq [Hz]', 'Amplitude percentage'], dtype='object') Index: RangeIndex(st

4.2 Pressure frequency peaks

	Freq [Hz]	Amplitude percentage
0	0.93	21.29
1	6.05	0.83
2	9.31	2.16
3	12.57	0.62
4	16.76	1.07
5	19.09	0.49
6	21.42	0.94
7	24.68	0.34
8	27.48	1.14
9	30.27	0.79
10	34.46	0.79
11	41.45	0.32
12	45.64	0.29
13	49.83	1.01
14	54.95	0.29
15	59.61	0.33
16	66.59	0.35
17	74.51	0.38
18	94.07	0.27