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())
```

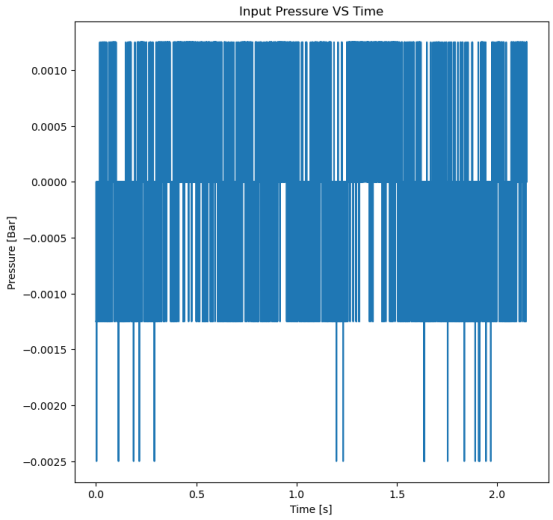
```
Output()
```

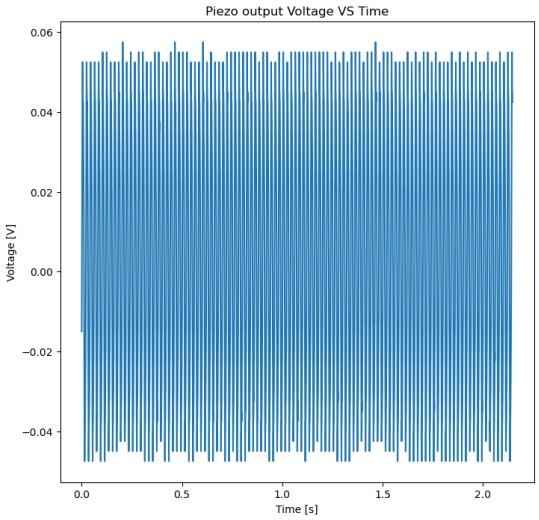
```
Sample name: test
```

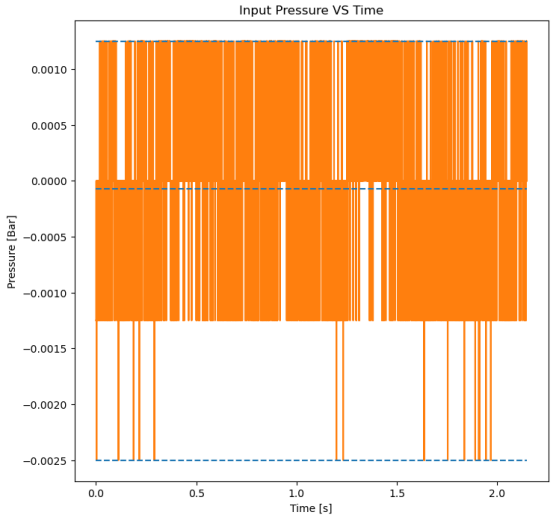
	Parameter	Value	Unit
0	Sample name	test	
1	Measure duration	3.0	[s]
2	Rload	300000.0	[Ohms]
3	Nb Periods	5.0	[1]
4	R Circuit	1.0	[Ohms]
5	Max Frequency	100.0	[Hz]

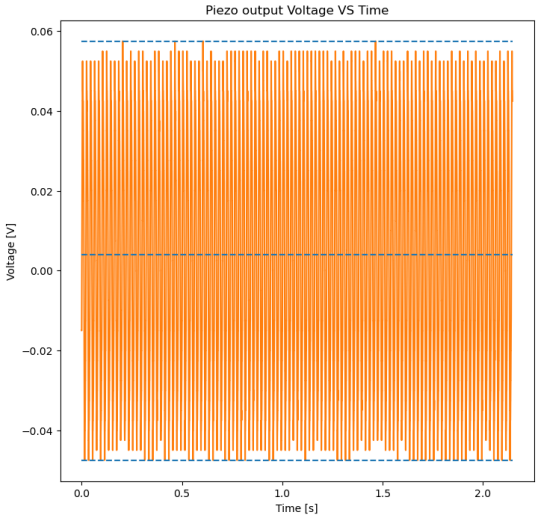
2 PRESSURE AND VOLTAGE MEASUREMENTS

```
The input frequency is:  1.86 Hz
```



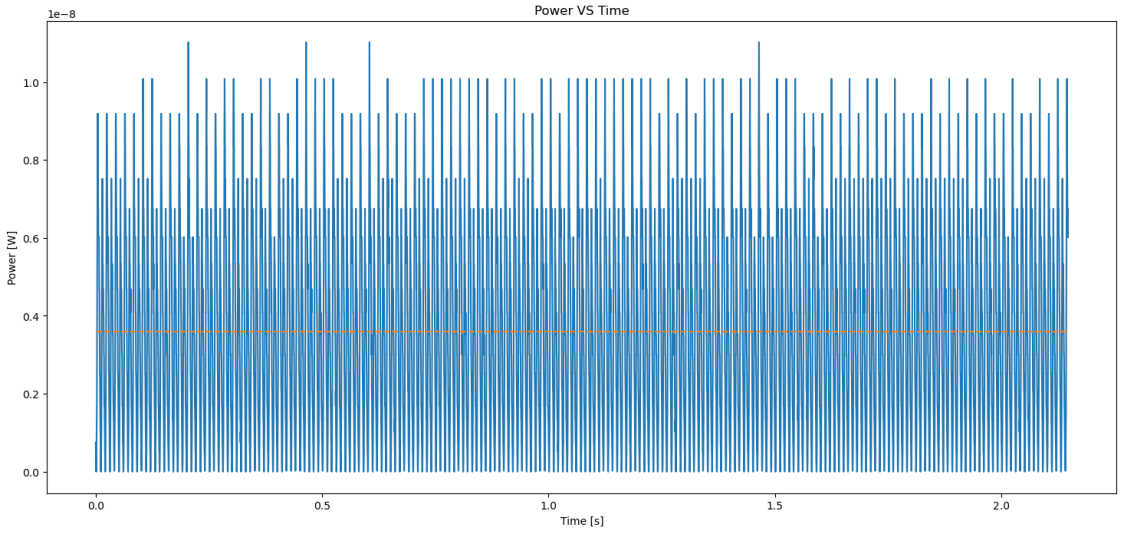






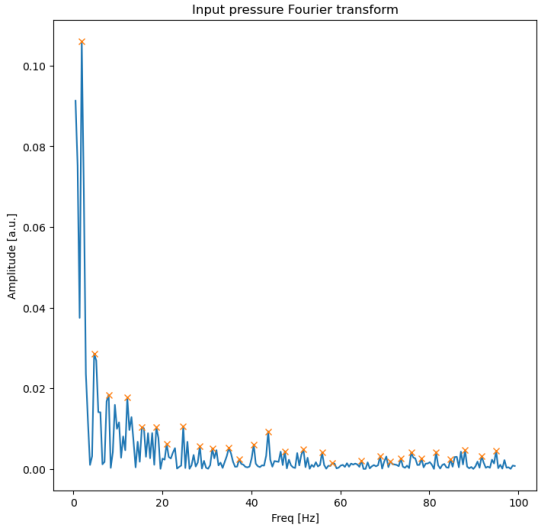
	Variable	Min	Max	Peak to peak	Mean	Mean of absolute value
0	Pressure [Bar]	-2.50e-03	1.25e-03	3.75e-03	-6.97e-05	4.53e-04
1	Voltage [V]	-4.75e-02	5.75e-02	1.05e-01	4.07e-03	2.97e-02

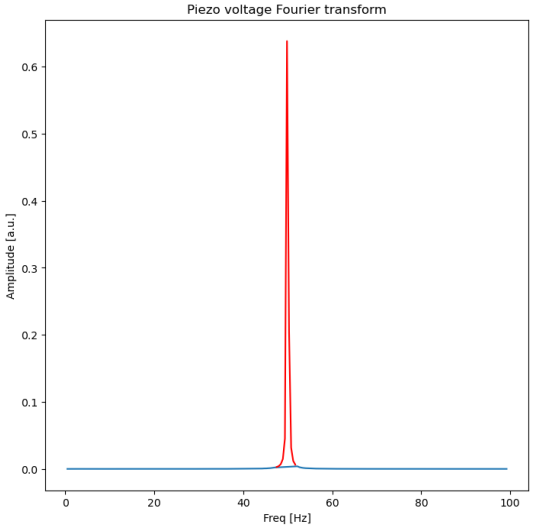
3 POWER



`Mean power: 3.59e-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	1.86	10.61
1	4.66	2.86
2	7.92	1.84
3	12.11	1.77
4	15.37	1.03
5	18.63	1.04
6	20.96	0.62
7	24.68	1.06
8	28.41	0.57
9	31.20	0.50
10	34.93	0.52
11	37.26	0.24
12	40.52	0.60
13	43.77	0.93
14	47.50	0.44
15	51.69	0.48
16	55.88	0.41
17	58.21	0.15
18	64.73	0.20
19	68.92	0.31
20	71.25	0.19
21	73.58	0.26
22	75.91	0.41
23	78.24	0.26
24	81.50	0.42
25	84.76	0.24
26	88.02	0.47
27	91.74	0.32
28	95.00	0.45