Lab Report

Batuhan Arslanoglu

May 2018

Contents

1 Theoretical part **2**
1.1 Circuit calculation 2
1.2 Circuit diagram 3
1.3 Circuit plot 3

2 Practical part **4**
2.1 Work with GEDA programs 4
2.1.1 Work with gschem 4
2.1.2 Work with gnetlist 5
2.1.3 Work with ngspice 6
2.2 Work with QUCS programs 7

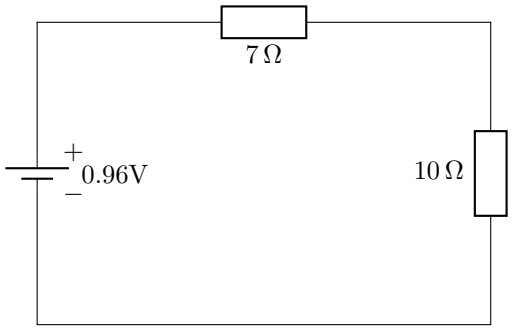
Chapter 1

Theoretical part

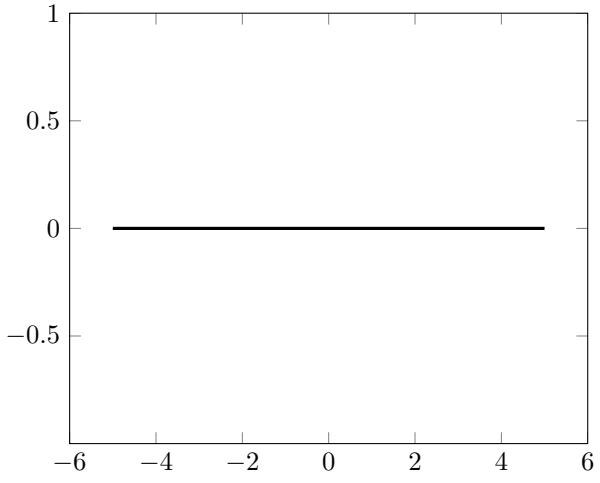
1.1 Circuit calculation

R1	10
R2	7
V1	0.96
UR1	0.56
UR2	0.39

1.2 Circuit diagram



1.3 Circuit plot



Chapter 2

Practical part

2.1 Work with GEDA programs

2.1.1 Work with gschem

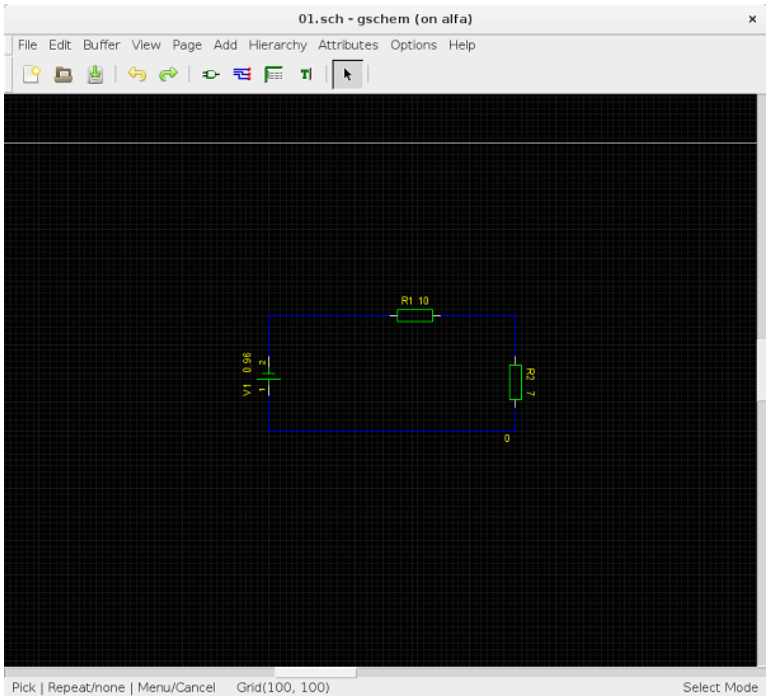


Figure 2.1: Circuit within the gEDA schematics environment.

2.1.2 Work with gnetlist

```
* Spice netlister for gnetlist
R2 2 0 7
R1 1 2 10
V1 0 1 0.96
.END
```

2.1.3 Work with ngspice

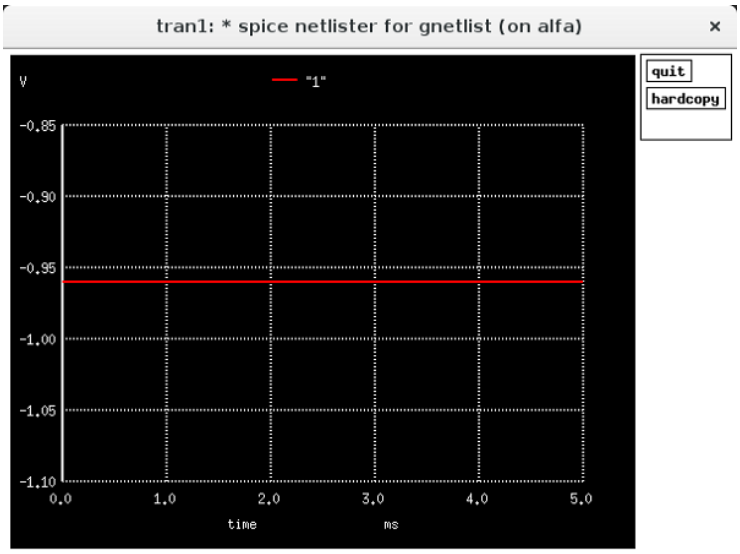


Figure 2.2: Simulation of voltage on resistor R1.

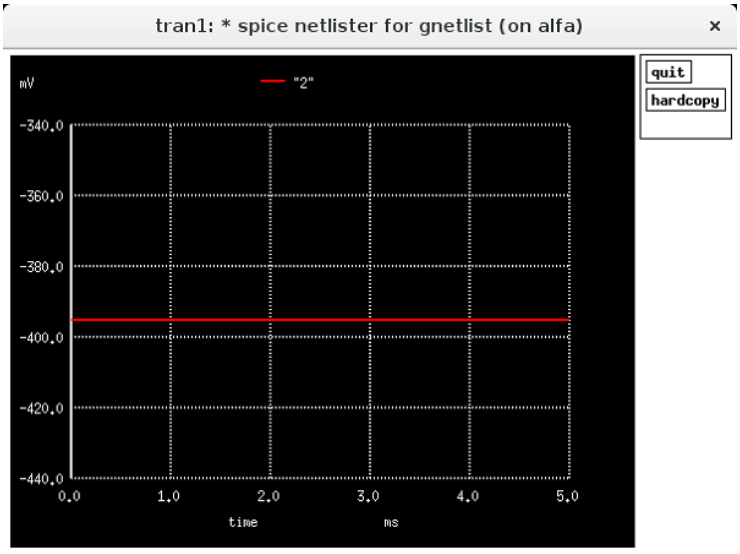


Figure 2.3: Simulation of voltage on resistor R2.

2.2 Work with QUCS programs

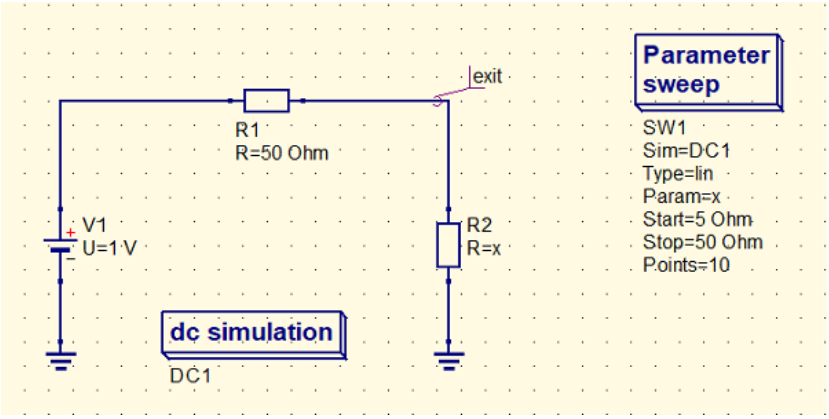


Figure 2.4: Circuit within the QUCS schematics environment.

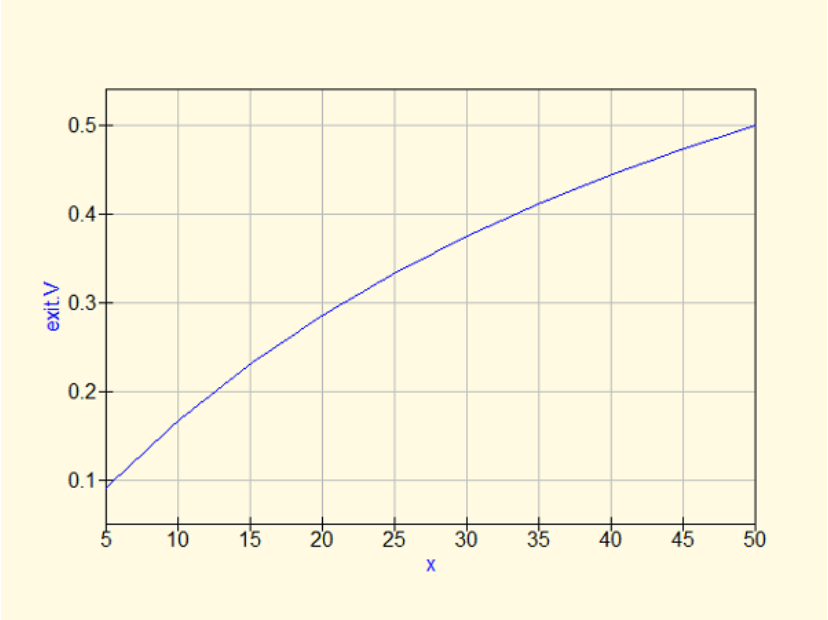


Figure 2.5: Plot with Cartesian coordinates, tabular view of currents flowing from points V1.1 and x.