### ELEC 11141

# Experiment no: XX

# **Experiment Title**

Name: Name with Initials Student No: PS/20XX/XX Partner's No: PS/20XX/XX Date of experiment: Date

## **Experiment No:**

XX

## **Experiment Name:**

Name of the Experiment

## Apparatus:

Signal generator, Oscilloscope, Multimeter,  $1k\Omega$  resistor,  $4.7\mu F$  capacitor, etc.

## Theory and diagrams:

Theory and diagram details are typed in here. Most of the time, this is a section where you would want to include a figure. Now to include a figure, we have used the graphicx package. It is important to note that the figures included should be in the same folder for IATEX to find them automatically. You could always give the path in the IATEX code if the figure is located somewhere else.



Figure 1: Smiley face

When writing the report, you may want to use some math symbols. Math symbols are typed in between two '\$' symbols. for ex:  $E = mC^2$  and  $\psi = e^{-i(kx - \omega t)}$ 

#### **Observations:**

You are going to attach the signed observation sheet from your lab. So might need to start from a new page in the next section. We can use a page break for this. Please remember to delete the Observation section and text.

#### Calculations and Results:

You might need to type equations in this section, as demonstrated below. We could use the following method to write and number the equations. First, you could write the equation and label it and refer to the equation by the label, so LaTeXwill automatically fill out the equation number. For example, the equation 1 is known as the Euler equation. Here the equation is referred to using the label "eu\_eqn".

$$e^{\pi i} + 1 = 0 \tag{1}$$

$$V = I \times R \tag{2}$$

The equation in 2 is known as Ohm's law

Now let's try some more

$$A = \frac{\pi r^2}{2}$$

$$= \frac{1}{2}\pi r^2$$
(3)

Additionally, we might have to add tables to tabulate the results, one of the ways is to package tabularx

Data from the Lab		
Data point	Current	Voltage
1	10	1.5
2	20	3.0
3	30	4.5

Table 1: Sample data table

You could include the graphs as figures in the document.

#### **Conclusions:**

It would be convenient to itemize some factors to imply your idea shortly and sweetly.

Lists are easy to create:

- Here is an example
- Individual entries are indicated with a black dot, a so-called bullet.
- The text in the entries may be of any length.

Numbered (ordered) lists are easy to create:

1. Items are numbered automatically.

- 2. The numbers start at 1 with each use of the enumerate environment.
- 3. Another entry in the list

### Discussion:

You can do much more from LaTex. You would find that LaTeXis used as a standard template for many occupations. Especially in academic writing such as a dissertation, thesis, articles, etc. STEM field uses LaTeXformatting extensively. So get an idea about it. If you have any questions, ask your demonstrators to explain.

### New title:

If you need more sections, you can add them. Feel free to edit it as you like.