

# *Experiment 4*

## *Introduction to Microsoft Excel*

**Introduction:**

The table below contains a set of 18 data points measured in an attempt to determine the current vs. voltage ( $I$ - $V$ ) characteristic curve of a device called a tunnel diode. Here you will gain practical experience in using Microsoft Excel to plot such data in a report-quality form.

<b>Voltage (mV)</b>	<b>Current (mA)</b>
0	0
50	0.1100
70	0.2200
100	0.5000
140	0.9500
160	1.2000
170	1.3000
180	1.2000
190	0.6000
200	0.3300
220	0.2200
240	0.2000
280	0.2500
300	0.3200
350	0.6200
450	2.0100
500	3.7500

This experiment is designed to be completed by students while working at a computer. The emphasis here is on “learning by doing”. The experiment is intended to be fully completed in one 150-minute laboratory class.

**Preliminaries:**

Read and understand Appendix O of the EE2240L Laboratory Manual.

**Procedure:**

- a. Use Microsoft Excel to plot a scatter plot of this data. Include an appropriate title and axis labels.
- b. Repeat for a line plot.

**Report:**

No formal report is required for this experiment. Be sure to show your results to the Teaching Assistant prior to leaving the lab.