The Lab Report

When performing lab tests, whether in college or industry, the lab report is vital for presenting results in a logically ordered, readable fashion. To ensure readability, the report should be done using a word processor while can perform text formatting, as well as equation editing and simple schematic editing. A spell checker should be used to avoid spelling mistakes. All sections of the lab should be organized in some logical fashion (i.e., chronologically) and the related material in different sections should reference previous sections. The following section describes the layout that should be used.

In order to write a successful lab report it should contain the following key elements: objectives, pre lab calculations, equipment used, methods, results discussion, and conclusions.

Objectives

The objectives section should be brief, one paragraph summary of the objectives of the lab experiments. In other words, this section should contain a short list of tests to be performed as well as the expected benefits to be gained.

Pre lab

Any preparation work that was done prior to the lab should be presented here. This section should contain a short list of tests to be performed as well as the expected benefits to be gained.

Equipment and Materials

This section includes a list of equipment and material used to perform the lab. This list should include the make and model of all equipment and a complete list of parts.

Methods

Methods should include detailed descriptions of each of the experiments to be performed. This should include both a description of the circuit and the test setup used to acquire the data. The data should not be included in this section, but rather in the results section. When describing the circuits and test setups, all pertinent descriptions should be illustrated with diagrams and/or schematics. Enough information must be included so that reader could repeat the experiment completely.

Results and Discussion

All of the results should be included here. The results from each experiment should be presented in the same order as it was in the above methods section. The data or each experiment should be presented in a logical, concise format such as a graph or a table. Graphs should be completely labeled and all the axis should be scaled correctly. Sketches should be to scale with all pertinent points measured and marked correctly. Finally, the data should be discussed. Any errors should be explained.