

# Lab 01

## Introduction

### Description

This lab will introduce you to the digital logic course, lab, and tools used in the lab. You will have opportunities to practice the concepts from the introductory lecture.

### Procedure

1. Listen to the description of the lab and lab tools.
2. When instructed, follow the Vivado Installation Instructions handout to install Vivado on your personal device, if desired.
3. When instructed, complete worksheets 01A and 01B. Participate in group discussion when applicable.

### Deliverables

#### Worksheets

- Submit an **informal report** consisting of the following:
  - Completed worksheet 01A
  - Completed worksheet 01B

### Outcomes

- Understand what tools will be used in the lab.
- Install Vivado on a personal device if desired.
- Understand how numeral systems are formed, and create a new system.
- Understand decimal, binary, octal, and hex numeral systems and their uses.
- Understand positional notation.
- Understand and practice conversion between common bases.