

# Lab 4 – Test Pattern

Digital Circuit and Systems  
Department of Electronics Engineering  
National Chiao Tung University  
**Due Date: June 15<sup>th</sup>, June 16<sup>st</sup>**

## Data Preparation

Extract test data from TA's directory:

```
% tar zxvf ~DCSta01/DCS_LAB4.tar
```

## Problem Description

INPUT: 4 bits INPUT1, INPUT2

OUTPUT: 6 bits OUT

The correct circuit is

$OUT = INPUT1[3:0] + INPUT2[3:0]$

But the circuit we give you is

$OUT = INPUT1[2:0] + INPUT2[3:0]$

Try to write a test pattern to prove the circuit is incorrect. Using \$display

## Execution of your program

Your program will only be executed with the following command. If your program fails to execute the following command, you will receive no credit for this lab.

```
%ncverilog -f Run.f
```