CMPE 3331/ELEE 3331 LAB #1

Jan. 22, 2018

In Lab #1, you need to install the µVision IDE at the embedded system Lab, ENGR2.286, and perform the conversions/computations for number systems.

OBJECTIVES

In Lab #1, you need to install the µVision IDE at the embedded system Lab, ENGR2.286, and perform the conversions/computations for number systems.

LAB-REPORT (Individual Report: Due by 1:40pm, Jan. 29, 2018)

- For PART 2: Solve the problems and submit it by the due date.

PART 1: Install µVision at the PC (and/or your laptop if possible) located at the ENGR2.286.

To install the µVision, your team needs to download 'C51v957.exe' from KEIL web site:

https://www.keil.com/demo/eval/c51.htm

** Your team PC will be assigned during the class on Jan. 24, 2018.

PART 2: Perform the following conversions/computations.

(a)

Base-10	Base-2	Base-16
63		
256		
10		
512		
255		

(b)

Base-2	Base-16	Base-10
11010		
10000		
11110		
101010		
1111		

(c)

Base-16	Base-2	Base-10
3BC		
10A		
20		
FFF		
FA		
BAD		

(d) Find the 2's complement numbers of the following binary numbers:
11110001, 10000010

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(e) Fill out the following table for 2 signed numbers' addition.

	1's Complement	**2's Complement**
Addition for two 4-bit binary numbers	1111 +1101 ----------	0101 +0110 ----------
Overflow		
Value in Decimal		

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