

# EECE 371- Embedded Learning Systems

Due date: Wed., Feb 6<sup>th</sup> 2019

5 points

I.

a- Choose one of the following system:

- 1- **UDOO NEO Full**
- 2- **NXP Semiconductors Freedom FRDM-KL25Z**
- 3- **STMicroelectronics Nucleo F401-RE**
- 4- **Nordic Semiconductors nRF51 DK**
- 5- **Cypress Semiconductors FM4 Starter Kit**

And report what is the main features of the kit you chose showing main components and specs. Also report some example projects that used such kits.

b- Read this white paper:

<http://www.ti.com/lit/wp/sway020/sway020.pdf>

and report what is the main features in the MCU used (Sitara AM57x, referenced in the paper)

II. Systems thinking

a- If you are developing a robot with a main task to build or aid construction process of a building. Describe how would you specify the system and go through the design flow showing how you would model it and what components you will consider for a preliminary design. (Be abstract and precise)

III. Specifications

For the following devices, look up what are the typical specifications for them. (e.g. Delay, Power, Size, etc.)

- a- Portable EEG
- b- Car Dashcam
- c- Drone Controller
- d- Heart Pacemakers