Decoders 1.4: Project Realization in Cleanroom

Style: *Teamwork;* Collective

This class is graded P/D/F. To pass, you must: (i) attend all the cleanroom sessions, (ii) work in a team setting, and (iii) finalize your image processing for the image contest, (iv) write a scientific paper/article on the research findings as a team, and (v) demo the final device functionally. By the end of Class #1, students must decide whether to register or drop the course.

Overview: *Decoders 1.4* builds on the combination of knowledge and skills learned in *D1.0* and *D1.3, respectively to* guide students to develop their own mechanically adaptive (i.e., stretchable & flexible) piezoelectric systems. Students will learn how to write an article about their research findings that will be published on the course website by the end of semester. The midterm project is to submit an image of a process and/or a device component with an artistic/personal view. Students show how their personality reflects on projects and more broadly to make potential changes on the society. The images can be edited using any software such as Photoshop to reflect social and emotional vision with the device part. Recognitions are given to all images (e.g., 'The best color') at the Image Contest. The mini videos taken by students throughout the semester result in the final video of the project development.

- [Cleanroom](#) (YellowBox) open hours will be held on Fridays from 9am to 11am.

Objectives:

1. To work in a team setting and accomplish the task of building a mechanically adaptive device,
2. To use the lens of creativity and social change to produce images of device parts with a social message,
3. To write a scientific paper/article on the research findings as a team,
4. Demo the final device functionally.

Schedule:

Class 1: February 6ᵗʰ, 2020 (E15-466)

     a. Introduction class to discuss problem
         i. Class Engagement: Turkish lunch and discussion/brainstorming session

Class 2: February 13ᵗʰ, 2020 (E15-466)

     b. How to write a paper
         i. Class: Explain how to write a paper
         ii. Lab: Start literature review

Class 3: February 20ᵗʰ, 2020 (E15-466 & E15-443a)

     c. Design the device

Class 4: February 27ᵗʰ, 2020 (E15-466)

     d. Revise the article layout

Class 5: March 5ᵗʰ, 2020 (E15-466 & E15-443a)

     e. Define the roles of individuals & working schedule

Class 6: March 12ᵗʰ, 2020 (E15-443a)

     f. Fabricate the device & test

Class 7: March 19ᵗʰ, 2020 (E15-443a)

     g. Fabricate the device & test

Class 8: April 2ⁿᵈ, 2020 (E15-443a)

     h. Fabricate the device & test

Class 9: April 9ᵗʰ, 2020 (E15-466 & E15-443a)

     i. Fabricate the device & test
         i. Submit draft images (internally, to the PI)

Class 10: April 16ᵗʰ, 2020 (E15-466 & E15-443a)

     j. Imaging project
         i. Class: Evaluate the draft of paper
         ii. Lab: Re-work on images

Class 11: April 23th, 2020 (E15-443a)

       k.   Fabricate the device & test

Class 12: April 30th, 2020 (E15-443a)

       l.   Fabricate the device & test

Class 13: May 7th, 2020 (E15-443a)

       m. Fabricate the device & test

Class 14: May 14th, 2020 (E15-466)

       n.   Final deadline to submit article
            i.   Class: Evaluate the paper
           ii.   Lab: Final image exhibition to ML

Calendar

February 2020

Su	Mo	Tu	We	Th	Fr	Sa
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2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

March 2020

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April 2020

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May 2020

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
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