

# ECE6950: Adaptive Filters and Systems

## Homework Assignments

Textbook: *Fundamentals of Adaptive Filtering*, Ali. H. Sayed, Wiley & Sons, Hoboken, NJ, 2003, ISBN: 978-0-471-46126-5.

### **Homework #1 (due 9/14)**

Text: 1.4, 1.5, 1.10, 1.11, 1.13, 1.15, 1.16, 1.18

MATLAB: Project 1.1. Use the Matlab code provided by the author to solve the problem.

### **Homework #2 (due 9/21)**

Text: 2.5, 2.8, 2.11, 2.12 (a, b, c, d), 2.13, 2.14, 2.17, 2.19 (a, b), 2.20, 2.25, 2.31

MATLAB: Project 2.1. Use the Matlab code provided by the author to solve the problem.

- check your result for 2.12

### **Homework #3 (due 9/28)**

Text: 3.1, 3.3 (a, b), 3.4, 3.5, 3.8 (a, b), 3.12

MATLAB: Project 3.1 and 3.2 Use the Matlab code provided by the author to solve the problem.

### **Homework #4 (due 10/5)**

Text: 4.7, 4.11, 4.12, 4.13, 4.14, 4.18, 4.21.

MATLAB: Project 4.1 and 4.2 Use the Matlab code provided by the author to solve the problem.

**Exam #1 Take Home: Assigned on 10/5, to be completed by 10/12**

### **Homework #5 (due 10/19):**

Text: 5.3, 5.12, 5.14 (a, b), 5.22, 5.23, 5.25

MATLAB: Project 5.1, 5.2 and 5.3 Use the Matlab code provided by the author and Dr. Bazuin to solve the problem. (Look for the \_bjb for Dr. Bazuin's modifications.)

### **Homework #6 (due 10/26):**

Text: 6.2 (a, b, f), 6.7, [6.18, 6.19 (for 7.21)]

MATLAB: Project 6.1. Use the Matlab code provided by the author and Dr. Bazuin to solve the problem. (Look for the \_bjb for Dr. Bazuin's modifications.)

### **Homework #7 (due 11/2):**

Text: 7.2, 7.4, 7.5, 7.9, 7.10, 7.21.

MATLAB: Project 7.1. Use the Matlab code provided by the author and Dr. Bazuin to solve the problem. (Look for the \_bjb for Dr. Bazuin's modifications.)

### **Homework #8 (due 11/9):**

MATLAB: Project 9.1(a-f). Use the Matlab code provided by the author and Dr. Bazuin to solve the problem. (Look for the \_bjb for Dr. Bazuin's modifications.) – next class offering.

**Exam #2 Take Home: Assigned on 11/9 to be completed by 11/16**

***Homework #9 (due 11/30):***

Text: 10.1, 10.5, 10.10, 10.12.

MATLAB: Project 10.1. Use the Matlab code provided by the author..

***Homework #10 (due 12/7):***

Text:

MATLAB: Projects 11.1, 11.2, and 11.3. Use the Matlab code provided by the author..

***ECE 6950 Projects Due (12/7)***

***Takehome Assigned on 12/7, to be completed by 12/14***

***Final (12/14) → 7:15-9:15***