

MARMARA UNIVERSITY – Computer Engineering Dep.

CSE3048 Introduction to Signals and Systems

Assignment#1

Due: March 09,2015, Monday

1. Record your voice for 2 second when saying "**BİR**" and "**İKİ**" by using
 - 1000 sample/sec
 - 5000 sample/sec
 - 7500 sample/sec
 - 10000 sample/sec

Write Matlab code.

2. Play back your voice. What do you observe? As the sample rate is increased, what would happen?
3. Plot your results for "**BİR**" and "**İKİ**" using 1000 sample/sec and 10000 sample/sec. When two plots using the same sample rate are given, can you recognize which one corresponds to "**BİR**" plot? If yes, explain.

To collect a sample of your speech with a microphone, use the following Matlab functions:

audiorecorder: Create object for recording audio

recordblocking: Record audio from an input device.

getaudiodata: Store data in double-precision array

Submission Instruction

Your Assignment file will contain:

1. All your matlab files(.m) (matlab files must be submitted otherwise you will get zero):

-Write explanation comments for each code line.

-Write what your function is doing, what inputs and outputs are. Write this information at the beginning of each matlab function (you created) as comments.

2. Assignment Report (your assignment will be evaluated according to what you write in your report)

-Write your answers and your implementation details for each question. Also include the results of your program(plots,etc...) in the report.

3. Size of a working group will be 2. Groups can not collaborate, otherwise it will be counted as plagiarism, and cheating will be highly penalized.

4. Put all the matlab files and your report into a file and zip the file as

hw1_yourname_patnename_yourID_partnerID.zip

Example: hw1_emelKupcu_bernaAltinel_1200987897_120456866.zip

5. Send the zipped file to the E-mail: **cse348.mufe@gmail.com** until **09/03/2015 at 23:59** (Late submission will NOT be accepted)