INHA UNIVERSITY

Signal and System Mid Term Assignment

Please, watch the practical and lecture materials in advance.

Goals :

1. Repeat the same operations (shifting, scaling, reversing) in MATLAB
2. Write a brief report explaining each step of the implementation
3. Understand and implement algorithms with MATLAB

Task:

Make a simple MATLAB program to perform x3 operations as shown below:

The user should input the value as:

a) Type of operation(shifting, scaling, reversing)
b) Type of Signal (Discrete or Continuous)
c) Amount of shift or value based on the type of operation user selected

(Hint: A= input('please enter the value') or use App designer to get the input program should read all arguments, perform the corresponding operation and plot the original and final signal as discussed in the lecture.

Assumptions:

- Amount of shift/scaling/reversing can be + or -
- Exception should be thrown in case the user input an unrealistic value

Challenge:

- You need to select 4 different signals instead of the 3 used in lecture material
- One must of sinosoidal wave (sine or cosine)
- One must be Saw tooth or Square
- Other two can be any of your choices
- Additional marks will be given to those who implement using AppDesigner

Hint: *Refer to the practice session video material. All explanations about program implementation are provided as a video lecture. Watch and follow it carefully and finish the program yourself after you fully understand the process*

Submission

Submission is done by uploading your work on the I-Class system. You must upload a zip archive; This should contain a project containing all source code files and figures of the running program and a brief report.

- Late submission will not be accepted!
- The deadline is 2023/04/19 11.00 PM
- This is an individual Assignment.
- Each student should submit.