Independent University Bangladesh (IUB)
School of Engineering, Technology and Sciences (SETS)
Department of Electrical and Electronic Engineering
Autumn 2020 EEE 321LAB

Lab 2: Study on discrete signals and systems

Objectives:

1. To understand the discrete signals and systems.
2. To make the MATLAB functions so that discrete signals, such as unit impulse, unit step function etc., can be generated using MATLAB.
3. To understand discrete signal plotting using MATLAB.

Labwork:

1. Develop a **MATLAB** function named **"impseq"** that has a form;

   "function [x,n] = impseq(n0, n1, n2)"

2. Develop a **MATLAB** function named **"stepseq"** that has a form;

   "function [x,n] = stepseq(n0, n1, n2)"

3. (i) Generate the following signals:
   (a) **x[n] = u(n+1)** where **$-10 \leq n \leq 10$**
   (b) **x[n] = -u(n-2)** where **$-10 \leq n \leq 10$**
   (c) **x[n] = δ(n-2)** where **$-10 \leq n \leq 10$**
   (d) **x[n] = -δ(n+3))** where **$-10 \leq n \leq 10$**
   (e) **x[n] = u(n+1) + δ(n-2)** where **$-10 \leq n \leq 10$**

   (ii) Use *stem* function to plot **x[n]** and **comment** on the results in each case.

Lab Assignment-2: Develop a MATLAB function that will produce a RAMP signal.