IIR Filter by Impulse Invariant Technique

Code:

clc

clear all

s = %s

H\_s = 1/(s^2 + 7\*s + 10)

T = 0.2

a=pfss(H\_s);

z=%z;

A=0.3333;

B=-0.3333;

p1=-2;

p2=-5;

H\_z=A/(1-exp(p1\*T)\*z^-1)+B/(1-exp(p2\*T)\*z^-1);

disp(H\_z)

Output:

0.1008035z

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0.2465970 - 1.0381995z + z2