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clear all;
clc;
G = zpk([], [-1, -1], 1);
[zG, pG, kG] = zpkmdata(G, 'v');
x0 = 20*ones(4, 1);
[xopt, fopt, flag, iter] = fminsearch(@PIDOptim, x0);
P = xopt(1)
I = xopt(2)
D = xopt(3)
N = xopt(4)
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Elapsed time is 0.123296 seconds.  
Elapsed time is 0.122457 seconds.  
Elapsed time is 0.149292 seconds.  
Elapsed time is 0.113833 seconds.  
Elapsed time is 0.114720 seconds.  
Elapsed time is 0.110504 seconds.  
Elapsed time is 0.113431 seconds.  
Elapsed time is 0.109994 seconds.  
Elapsed time is 0.114010 seconds.  
Elapsed time is 0.109792 seconds.  
Elapsed time is 0.110373 seconds.  
Elapsed time is 0.111545 seconds.  
Elapsed time is 0.109038 seconds.  
Elapsed time is 0.114601 seconds.  
Elapsed time is 0.106984 seconds.  
Elapsed time is 0.115351 seconds.  
Elapsed time is 0.111918 seconds.  
Elapsed time is 0.111555 seconds.  
Elapsed time is 0.108551 seconds.  
Elapsed time is 0.110304 seconds.  
Elapsed time is 0.110699 seconds.  
Elapsed time is 0.113204 seconds.  
Elapsed time is 0.113762 seconds.  
Elapsed time is 0.106633 seconds.  
Elapsed time is 0.114436 seconds.  
Elapsed time is 0.109762 seconds.  
Elapsed time is 0.113339 seconds.  
Elapsed time is 0.111716 seconds.  
Elapsed time is 0.108675 seconds.  
Elapsed time is 0.110290 seconds.  
Elapsed time is 0.109487 seconds.  
Elapsed time is 0.116580 seconds.  
Elapsed time is 0.108671 seconds.  
Elapsed time is 0.112254 seconds.  
Elapsed time is 0.110871 seconds.  
Elapsed time is 0.111918 seconds.  
Elapsed time is 0.111325 seconds.  
Elapsed time is 0.110699 seconds.  
Elapsed time is 0.116333 seconds.

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*Elapsed time is 0.110687 seconds.*  
*Elapsed time is 0.112972 seconds.*  
*Elapsed time is 0.109070 seconds.*  
*Elapsed time is 0.113292 seconds.*  
*Elapsed time is 0.115691 seconds.*  
*Elapsed time is 0.112064 seconds.*  
*Elapsed time is 0.109130 seconds.*

*P =*

*6.1942e+03*

*I =*

*3.0774e+03*

*D =*

*2.8113e+03*

*N =*

*1.2654e+03*

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