ECE 388

Automatic Control

LAB 8

Pole /Zero Diagram

The following closed loop transfer functions are given:

1. $\frac{s+2}{s^4+3s^3+7s^2+5s}$
2. $\frac{s}{s^3+3s^2-9s+5}$
3. $\frac{10}{s^2(s+2)^2}$ and $\frac{10}{s(s+2)^2}$
4. $\frac{50}{s^3+17s^2+80s+100}$
5. $\frac{(s-4)^2}{s^2+4s+3}$
6. $\frac{s^2(s+1)}{s^2+2s+2}$

- Sketch the pole/zero diagram of all transfer functions.
- Determine which of the transfer functions are stable.
- Confirm your results by simulating their step response.