# HOMEWORKS

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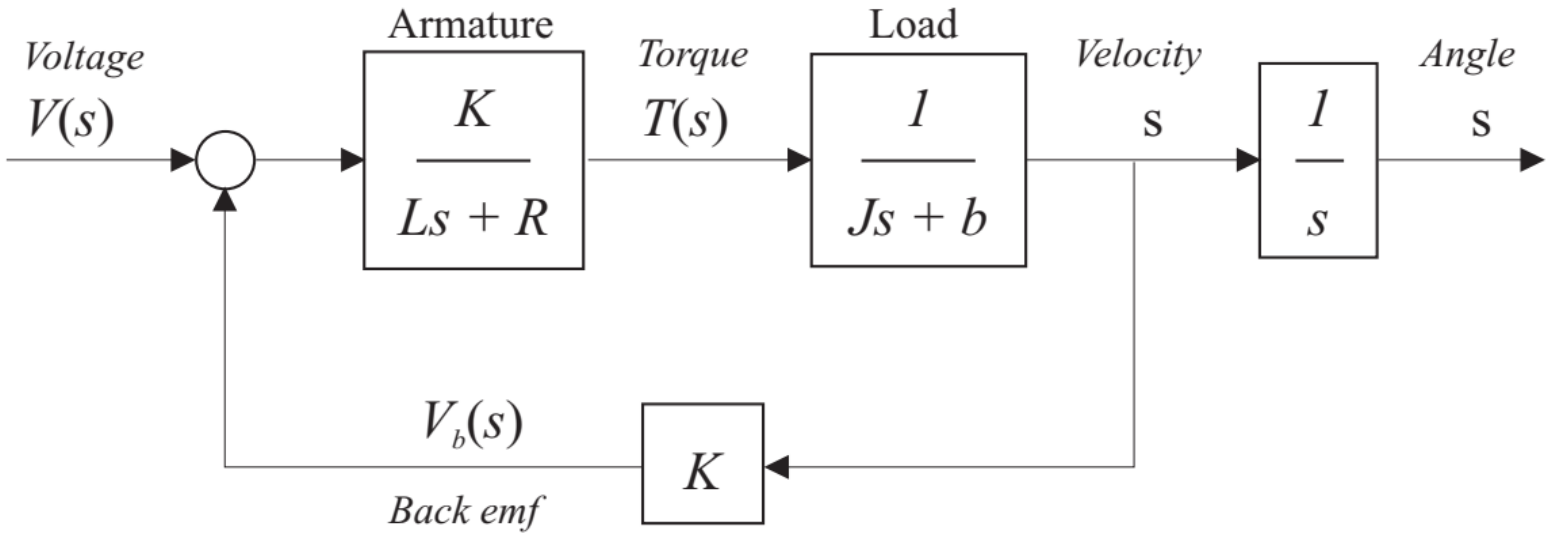
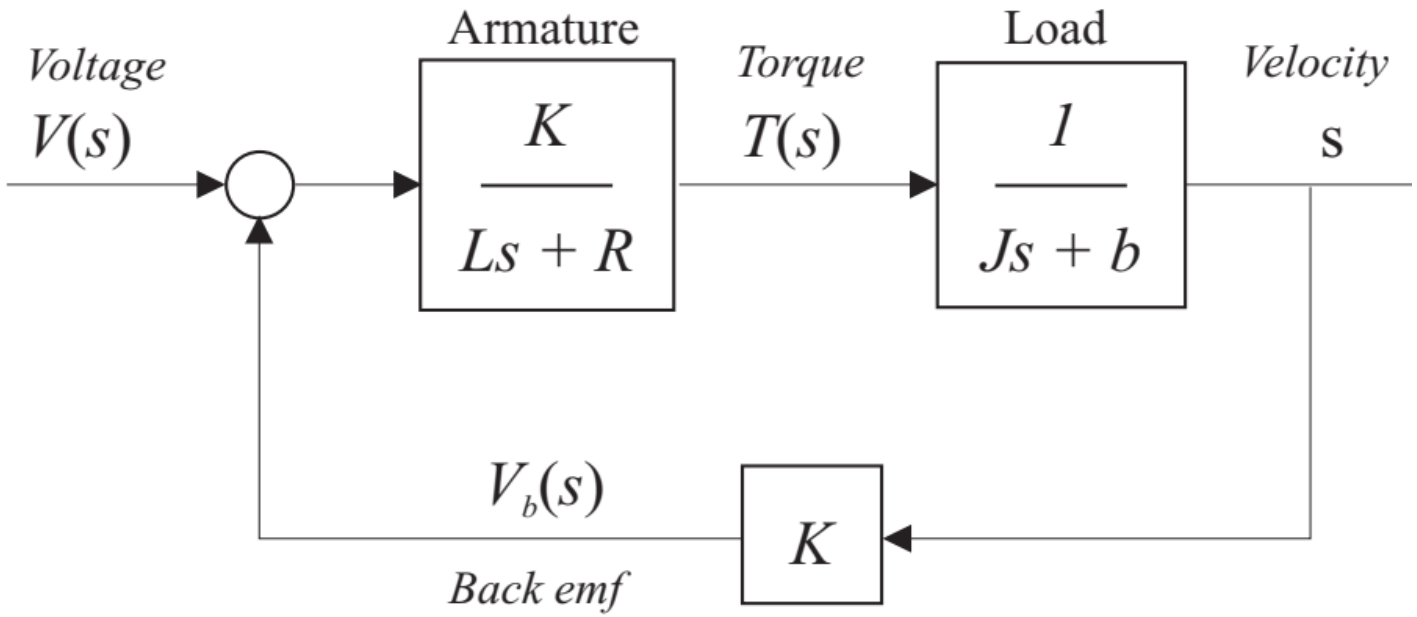
# Homework 1: Position Control

- Control the motor position (voltage is the plant input)
- Reach the highest possible bandwidth
- Reach 0 steady state error
- Avoid overshoot
- Nullify the disturbance  du
  (at steady state)



# Homework 2: Current Control

- Control the current (voltage is the plant input)
- Reach at least 100,000Hz bandwidth
- Reach 0 steady state error
- Avoid overshoot



# Homework 3: Cascaded Position-Velocity-Current

- Control the motor position
- Reach the highest possible bandwidth
- Reach 0 steady state error
- Avoid overshoot
- Nullify the disturbance  du
  (at steady state)