

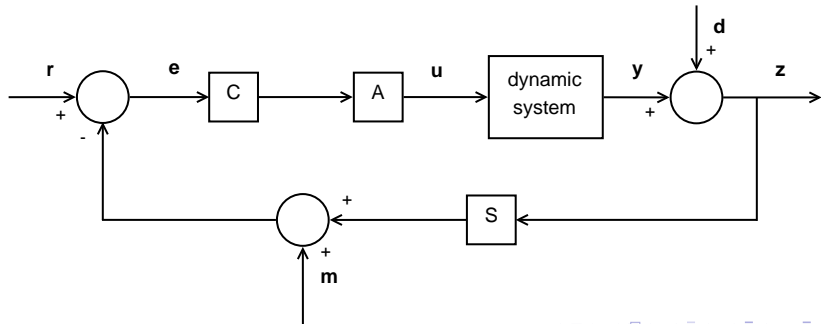
Outline

- 1 Course overview
- 2 Systems theory
- 3 Real life examples
- 4 Control theory**
- 5 Open-loop vs. closed-loop systems
- 6 Automatic control

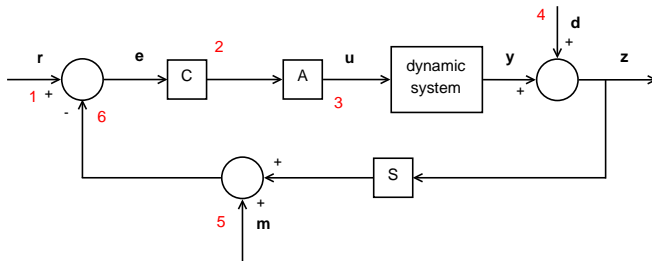
Control theory

Control theory deals with the behavior of dynamical systems and how their behavior is modified by feedback.

The output is compared to the reference signal and this 'error' is used by the controller to adjust the system.



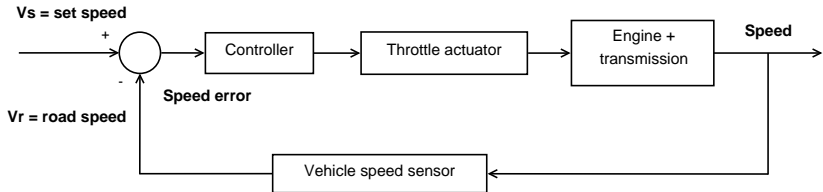
Control theory



1. reference signals: the desired output signals
2. Controller
3. Actuators
4. Noise
5. Measurement noise
6. Negative feedback

Example

Speed control system



Example

Temperature control system

