Principles of Wireless Sensor Networks

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Lecture 11
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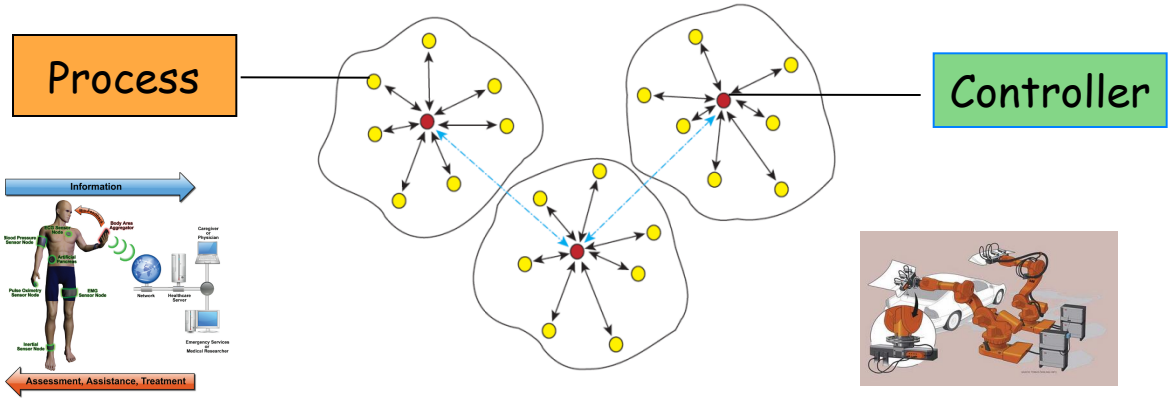
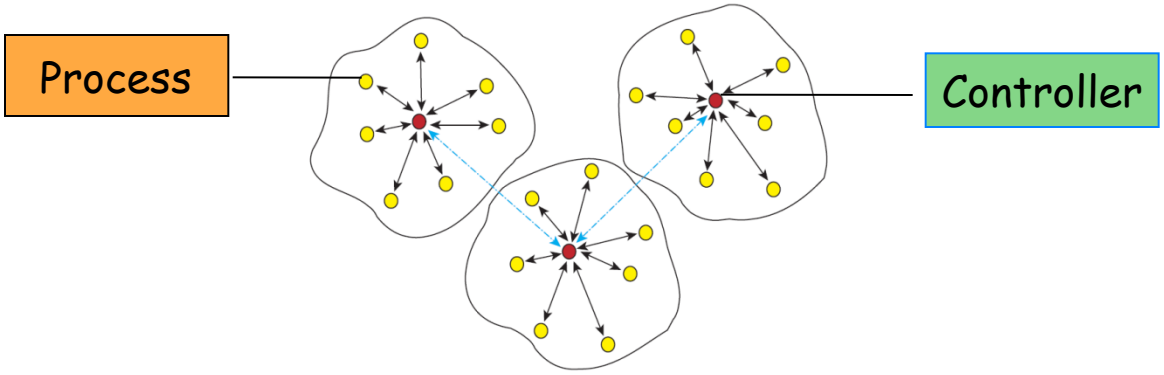
Previous lecture



How to synchronize nodes?

Today's learning goals



- How the process state dynamics over time are mathematically modeled?
- How such state dynamics can be controlled by closing the loop process->controller->process?
- How to discretize the continuous time model of the dynamics?
- What is the concept of state stability of closed loop control systems?

Outline

- Wireless Sensor Networked Control Systems (WSNCS)
- State space description of a control system
- Discretization of state space model of a control systems
- Stability and asymptotical stability of a control system

Summary

- We have seen the basic aspects of control systems
  - Mathematical description of the state evolution
  - Discretization
  - Stability

Next lecture

- WSNCS, robustness to packet delays and losses