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Distributed Control Systems

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Distributed Control Systems

Interconnection of heterogeneous agents that interact among each other to achieve a common goal.

Such systems may include different kinds of agents, such as robots, automatic machines, sensors, and human operators

Objectives

Methodologies for modeling and controlling heterogenous distributed systems

- Centralized and decentralized control architectures
- Graph-based modelling
- Communication delays
- User modelling
- Design of interaction systems



Asymmetric robot interaction Distributed Topology Control



UNIMORE 17/05/2023

Distributed Control Systems

Course organization

- 6 CFU
- Curriculum in Digital Infrastructure
- Hands-on approach
 - Use of MATLAB, ROS and other simulators
- Final assessment
 - Oral exam
 - Project on realistic use cases