UNI MORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

Distributed Control Systems

Prof. Lorenzo Sabattini

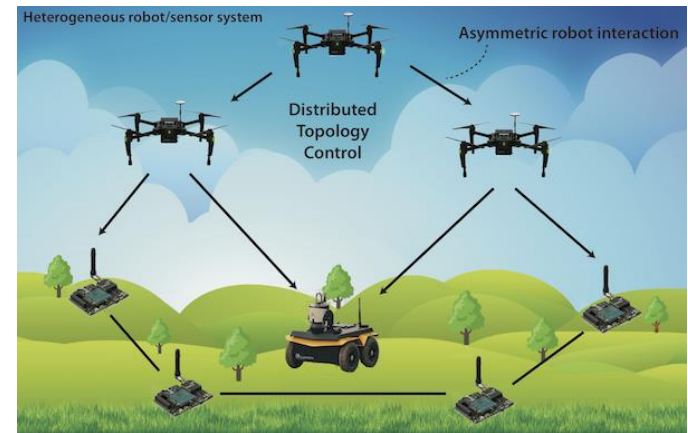Dr. Valeria Villani

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

Course organization

- 6 CFU
- Curriculum in *Digital Infrastructure*
- Hands-on approach
    - Use of Webots, CoppeliaSim, and other simulators
    - Group project, on a realistic use case, carried out during the course
- Final assessment
    - Oral exam
    - Report and presentation on the group project