

Cyberphysical systems modelling

Learning Outcomes

- To describe software architectures for a proposed cyber-physical system using a formal language
- To use the appropriate modeling languages to develop the detailed design of an application in the domain of cyberphysical systems and IoT
- To build microservices, configure containers and deploy microservices in containers to bring the service closer to the client

Contents

This subject addresses the main elements that make up cyber-physical systems from a descriptive and design perspective, as well as the way in which they interact with each other.

1. Systems of Systems, Cyber-physical Systems and IoT
2. Model Driven Development (MDD) Engineering
3. Development methodologies for Cyber-physical systems
4. Software architectures for Cyber-physical and IoT systems
5. Low level design of Cyber-physical and IoT systems using modeling languages
6. MDD / MDA (Model Driven Development / Model Driven Architecture)
7. Containers
8. Microservices