

Internet of Things

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Timetable: 20 hours. First lecture on April 28, 2015, 16:00 (dates already fixed, see the calendar), Torre Archimede, Room 2BC/30

Course requirements: No specific requirements.

Examination and grading: Seminar and paper on a subject assigned by the Instructors

SSD: INF/01 Computer Science, ING-INF/04 Systems and Control Theory, ING-INF/03 Telecommunications

Aim: This course provides a general introduction to the emerging concept of the Internet of Things and an overview of its stack of enabling technologies, spanning from sensors and actuators near the user or environment end to the cyber-physical systems that provide governing intelligence, via the Cloud that caters for virtually ubiquitous connectivity. The course aims at highlighting open issues with the IoT model, deployment, evaluation and evolution, outlining future directions relevant for societal impact and research opportunities.

Course outline:

- IoT paradigms and frameworks
- Architectures, semantics, security privacy, standardisation issues
- Integration: Cloud technologies, big data, cyber-physical systems, components, network technologies
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- IoT for the Factories of the Future
- IoT for the Smart Cities
- Societal Impact of the IoT.