



SPRING SEMESTER (M1.2/14.8)

HEALTHCARE ENGINEERING

GRAND PARIS SUD CAMPUS

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Partners

Partner companies who deliver lectures/conferences or mentor case studies.

mc2i / Genopole / Inno med / bioserenity / Brie'Nov / BioMaps / Actus Vere / CHAM

OBJECTIVES

- Discover what a biomedical engineer is and understand the role of IoT
- Exposure and understanding of artificial intelligence, medical simulation for healthcare applications
- Meet leading companies in innovation
- Self-reflection on medical ethics

PROGRAM

Lectures/Conferences

Conference series held by industry partner representatives:

- The role of the healthcare engineers
- The role of IT developers for tomorrow's needs
- Medical imaging
- Robotics in the healthcare and logistics fields
- Artificial Intelligence for healthcare applications
- Controlling machines with your brain
- How can the use of sensors lead to less painful working conditions for operators?

Industry Visits

- Living Lab - research center for healthcare applications
- A hospital's biomedical department
- Innovative start-ups
- Prostheses fabrication workshop

Typical Project(s)

- Design of an artificial hand for disabled people
- Implementation of a workbench to test the efficiency of an air-filtering and depolluting plant
- Feasibility study of implementing a technology that externalizes a hospital's biological data

Competencies

- Problem statement and analysis, familiarization to domain- specific technical vocabulary and industry rules

Prerequisites

Note that as lectures and case studies for industrial partners are mostly conducted in French, having a good level of French is recommended.

Assessment

- Visits and course reports
- Practicals/technical reports
- Regular progress reports and consultations
- State of the art
- Project oral and written presentation