Robotique industrielle (MECA953_MMT)

Composante
Polytech
Annecy-
Chambéry

En bref

- **Langues d'enseignement:** Français
- **Ouvert aux étudiants en échange:** Oui

Présentation

Description

List of topics to be covered

1. Historical Context, Types, Applications and Basic Concepts in Robotics

2. Structure and Components of Roobot Manipulators
3. Spatial Representations of Rigid Bodies
4. Forward Kinematics of Robot Manipulators
5. Inverse Kinematics of Robot Manipulators
6. Differential Kinematics
(7. Dynamics of Robot Manipulators)

Objectifs

The objective of this course concerns Industrial Robotics and the ability to choose a robot according to the expected tasks and industrial context. It will also cover the various models needed to understand the operation of an industrial robot (typical architectures, characteristic quantities, modeling and model inversion), its behavior, the description of end-effector motion in space, and the minimum knowledge required to design and size the actuators that make up the robot.

Heures d'enseignement

CM	Cours Magistral	13,5h
TD	Travaux Dirigés	13,5h
TP	Travaux Pratiques	12h

Pré-requis obligatoires

MATHS501
MECA655

Bibliographie

[1] Siciliano B. Robotics : modelling, planning and control. Springer 2009.

[2] Spong M, Hutchinson S, Vidyasagar M. Robot Modeling and Control. wiley ed. 2005.

Infos pratiques

Lieux

Annecy-le-Vieux (74)