

Control system design

Titulaire

Emanuele GARONE (Coordonnateur)

Mnémonique du cours

MATH-H407

Crédits ECTS

5 crédits

Langue(s) d'enseignement

Anglais

Période du cours

Premier quadrimestre

- Present and defend results in a scientifically sound way, using contemporary communication tools, for a national as well as for an international professional or lay audience
- Work in an industrial environment with attention to safety, quality assurance, communication and reporting
- Develop, plan, execute and manage engineering projects at the level of a starting professional
- Think critically about and evaluate projects, systems and processes, particularly when based on incomplete, contradictory and/or redundant information
- A creative, problem-solving, result-driven and evidence-based attitude, aiming at innovation and applicability in industry and society
- A critical attitude towards one's own results and those of others
- Consciousness of the ethical, social, environmental and economic context of his/her work and strives for sustainable solutions to engineering problems including safety and quality assurance aspects
- The flexibility and adaptability to work in an international and/or intercultural context
- An attitude of life-long learning as needed for the future development of his/her career
- Has a profound knowledge of either (i) nano- and opto-electronics and embedded systems, (ii) information and communication technology systems or (iii) measuring, modelling and control.
- Is able to model, simulate, measure and control electronic components and physical phenomena.

Contenu du cours

Voir la version en anglais

Objectifs (et/ou acquis d'apprentissages spécifiques)

Voir la version en anglais

Pré-requis et co-requis

Cours ayant celui-ci comme pré-requis

MEMO-H502 | Master thesis in Electromechanical Engineering | 24 crédits et STAG-H502 | Internship (40 days) | 6 crédits

Méthodes d'enseignement et activités d'apprentissages

Voir la version en anglais

Contribution au profil d'enseignement

This teaching unit contributes to the following competences:

- In-depth knowledge and understanding of exact sciences with the specificity of their application to engineering
- In-depth knowledge and understanding of integrated structural design methods in the framework of a global design strategy
- In-depth knowledge and understanding of the advanced methods and theories to schematize and model complex problems or processes
- Reformulate complex engineering problems in order to solve them (simplifying assumptions, reducing complexity)

Références, bibliographie et lectures recommandées

Voir la version en anglais

Autres renseignements

Contact(s)

Emanuele Garone Service d'automatique et d'analyse des systèmes. Bât. L, porte E, 1er étage, CP 165/55.

Méthode(s) d'évaluation

Autre

Méthode(s) d'évaluation (complément)

Voir la version en anglais

Construction de la note (en ce compris, la pondération des notes partielles)

Voir la version en anglais

Programmes

Programmes proposant ce cours à l'école polytechnique de Bruxelles

MA-IREL | **Master : ingénieur civil électricien** | finalité Spécialisée électronique et technologies de l'information/bloc 1 **et** MA-

IREM | **Master : ingénieur civil électromécanicien** | finalité Spécialisée/bloc 1 et finalité Operation engineering and management/bloc 1

