

Innovation

Number of ECTS credits: 6

Coefficient:

Description:

Part Method for the Invention:

- Positioning of TRIZ (theory of solving inventive problems), in relation to the design methods and methods / tools of creativity.
- Presentation of the TRIZ. The TRIZ adopts a scientific approach and is equipped to solve the problems of designing technical systems based on some essential notions (Laws of evolution of technical systems, psychological inertia, resources, ideality, contradictions), tools modeling problems (Contradictions, vehicles, functions) and tools for solving problem models (design principles, resolution standards, PCG effects). The courses and tutorials will present the basic principles of this theory applied to engineering problems, and some simple practical implementations.
- Case study to be handled in pairs and exchanges on the implementation of TRIZ Patent side and industrial property:
 - Awareness of the issues of intellectual property protection
 - Copyright for literary and artistic property
 - Industrial property law: patents, trademarks and designs
 - Study of patent contracts and assignment of rights
 - Study of jurisprudence in the field of intellectual property
 - Notions of competition law (on the espionage part in particular)

Pedagogical objectives:

The design activity must often be inventive. Alongside the routine design, it must allow companies to take technological steps and anticipate the evolutions of technical products. But an inventive technical conception is not synonymous with innovation; It is still necessary to control the placing on the market of the invention and to make it a success. At the same time, it is also necessary to monitor the rights relating to innovation.

The objectives of this course are then:

- to acquire the bases of the methods and theories allowing the generation of inventions, thus the development of the creativity of the individuals, but also the treatment of the conditions of the insertion of an invention on the market,
- be made aware of the importance of protecting innovation,
- know the different procedures,
- understand the defensive but also offensive interest of intellectual property protection,
- know how to put in place a protection strategy.



Bibliography: Prerequisite:

Lectures Hours: 21

Tutorials Hours: 15

Labs Hours: 9

Knowledge monitoring modalities: 100% continuous assesement

Assesement: exam, presentation of case studies, case study

Leader: Philippe LUTZ

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