Technology-based Innovation Project

**Department in charge:** Department of Management and Department of Electronic Engineering

**Total teaching hours:** 15 hours

**Language:** English

**Coordinating lecturer:** Vicenç Fernández and Ramon Bragós

**Other lecturers (if any):**

**Teaching methodologies:**

The course will be performed by alternating introductory methodology pills, collaborative work, and the project-based method. The students of different Ph.D. programs will be mixed to build interdisciplinary teams.

**Learning objectives:**

- Understand a given technology's main features and associated applications and business models.
- Identify possible new applications of a given technology, emphasizing the ones with more social impact.
- Define alternative business models for a given application of the technology.

**Course contents:**

*Research - Technology – Application – Business model (3h):*

- Identification of the main features of a given technology, with emphasis on examples based on recent research
- Technology Readiness Level (TRL) scale
- Selection of a set of research cases and the associated technologies

*Ideation, generation of alternative applications (3h):*

- Exploration of possible applications of a given technology in several economic areas
- Generation and categorization of possible solution ideas for the selected applications
- Validation of the selected solution ideas
- Sustainability and ethical analysis of the proposed solutions

*Proposal of Business Model Alternatives (6h):*

- Identification of the features of the main business model associated with a technology
- Pivoting: development of alternative business models
- Validation and selection of the alternatives

*Project presentation and discussion (3h)*

**Basic bibliography:**