

Technological Innovation

Academic Year: (2023 / 2024)

Review date: 31-03-2023

Department assigned to the subject: Signal and Communications Theory Department

Coordinating teacher: BOUSOÑO CALZON, CARLOS

Type: Electives ECTS Credits : 6.0

Year : 4 Semester :

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Interest in the technological innovation process and its ecosystems.

OBJECTIVES

Basics and fundamentals of the complexities and perspectives of the technological innovation processes.
 Understanding of the motives for innovating: opportunities and risks.
 Basic tools to engage in real projects.

DESCRIPTION OF CONTENTS: PROGRAMME

1. Tecnological Innovation (TI) perspectives and related concepts.
2. The role of Creativity in the TI. process.
3. Tools for managing TI: Game Theory, Patents and Technology Monitoring and Forecasting.
4. Internationalisation and Geostrategic aspects of TI.
5. Unfolding trends in the European scenario and the Spanish Innovation Ecosystem.

LEARNING ACTIVITIES AND METHODOLOGY

- A. Lectures
- B. Invited talks and discussions.
- C. Project on particular aspects of technological innovation
 Examples: 1) Competitive intelligence with advanced statistical techniques: Big Data for Technology forecasting
 2) Trends in electronic textiles: antennas, information and energy processing.
- D. Practical operation of Information Markets for innovation projects selection.

ASSESSMENT SYSTEM

50% project and Information Market operation.
 50% final exam.

% end-of-term-examination:	50
% of continuous assessment (assignments, laboratory, practicals...):	50

BASIC BIBLIOGRAPHY

- D. Thompson Oracles: How Prediction Markets turn employees into visionaries., Harvard Business Review Press, 2012
- Ken Binmore Playing for Real: A Text on Game Theory, OUP USA, 2007

ADDITIONAL BIBLIOGRAPHY

- The Economist Special report: Tech start-ups., The Economist., 2014- Jan 18th.

BASIC ELECTRONIC RESOURCES

- European Commission . Innovation Union Home page.: http://ec.europa.eu/research/innovation-union/index_en.cfm
- European Patent Office . Web Site.: <https://www.epo.org/index.html>
- Fundación para la Innovación Tecnológica . Página COTEC: <http://www.cotec.es/>

