AI in Health

Academic Year: (2023 / 2024)   **Review date: 10-06-2022**

Department assigned to the subject: Signal and Communications Theory Department

Coordinating teacher: ARTES RODRIGUEZ, ANTONIO

Type: Electives ECTS Credits : 3.0

Year : 1 Semester : 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

None

OBJECTIVES

The objectives of the matter are: 1) to present the possibilities and limitations of the application of AI in the field of health, 2) to present problems in the field of health in which AI techniques can be applied, and 3) develop the capacity to apply AI techniques in some health problems.

DESCRIPTION OF CONTENTS: PROGRAMME

1. Introduction to AI in health
2. AI for diagnosis
3. Patient monitoring
4. Interpretability and validation
5. Risk stratification in patients
6. AI for hospital management

LEARNING ACTIVITIES AND METHODOLOGY

Theorical class
Practical classes
Practical theoretical classes
Laboratory practices
Tutoring
Team work
Individual student work
Midterm and final exams

ASSESSMENT SYSTEM

The student's final grade is obtained 100% by continuous evaluation, which consists of 2 laboratory practices.

% end-of-term-examination: 0

% of continuous assessment (assigments, laboratory, practicals…):   100

BASIC BIBLIOGRAPHY

 - James M. Rehg, Susan A. Murphy, Santosh Kumar Mobile Health: Sensors, Analytic Methods, and Applications, Springer, 2017
 - Kevin Patrick Murphy Probabilistic Machine Learning: An Introduction, MIT Press, 2022