# uc3m Universidad Carlos III de Madrid

# Legal and Business Aspects of the IoT

Academic Year: (2020 / 2021) Review date: 10/07/2020 18:24:09

Department assigned to the subject: Public State Law Department Coordinating teacher: SERNA BILBAO, MARIA NIEVES DE LA

Type: Compulsory ECTS Credits: 3.0

Year: 1 Semester: 2

#### REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

those required by the title

#### **OBJECTIVES**

#### Basic skills

CB6 Possess and understand knowledge that provides a basis or opportunity to be original in the development and / or application of ideas, often in a research context

CB7 That students know how to apply the knowledge acquired and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of ¿¿study

CB8 That students are able to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on social and ethical responsibilities linked to the application of their knowledge and judgments

CB9 That the students know to communicate their conclusions and the knowledge and last reasons that sustain them to specialized and non-specialized public in a clear and unambiguous way

## General skills

CG2 Ability to compile and analyze the existing knowledge in the different areas of IOT, autonomously, and ability to make a proposal of possible solutions to the problems posed.

CG7 Ability to know how to communicate (orally and in writing) the conclusions - and the knowledge and ultimate reasons that sustain them - to specialized and non-specialized audiences in a clear and unambiguous way.

#### Specific competences

CE5 Ability to design, develop, manage and evaluate security assurance mechanisms in the treatment and access to information in computationally limited devices and in IoT networks.

CE6 Ability to apply mathematical, statistical and artificial intelligence methods to model, design and develop applications, services and intelligent systems in the field of IoT.

CE10 Ability to integrate the different systems of perception and control of processes both from the hardware and software point of view.

CE13 Capacity to apply the legislation, regulation and standardization of the IoT.

### LEARNING RESULTS

The learning outcomes that students should have are:

- Know and apply the law and legal aspects of IoT.
- Know the models and reference structures of IoT.
- Capacity for analysis, design and control of systems and services
- Know the security risks of an IoT environment.
- Know the physical security measures applicable to mobile devices.
- Know and apply the fundamental techniques of protection of information stored on mobile devices.
- Master the main existing security protocols for mobile communications and their spectrum of application.

**DESCRIPTION OF CONTENTS: PROGRAMME** 

Legal and business aspects program

- 1.- Introduction to IOT
- 2.- Legal regulation of the IOT.
- 3.- Privacy and Data Protection in IOT
- 4.- Security in the IOT.

#### LEARNING ACTIVITIES AND METHODOLOGY

TRAINING ACTIVITIES OF THE STUDY PLAN CONCERNING SUBJECTS

AF1 Theoretical class

**AF4 Case Studies** 

AF6 Group work

AF7 Individual student work

AF8 Partial and final exams

Due to the pandemic situation, Covid 19-, the classes will be taught online through the tools and platforms provided by the University for the transition to online training through Blackboard Collaborate. Also, Aula Global (Moodle) will be used.

In accordance with the above, the methodology used determines the substitution of face-to-face classes for virtual classes through Blackboard Collaborate. These virtual classes will be held in accordance with the timetable approved for the subject by the Master's Office.

To facilitate the monitoring of the classes, the materials for each Lesson in the global classroom will be uploaded, as well as the

practical exercises and works.

**TUTORIAL REGIME** 

Tutorials will be provided by email or through the bb collaborate platform, at the times established in AULA GLOBAL either individual or group.

#### ASSESSMENT SYSTEM

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

The evaluation system of the subject will be 100% continuous evaluation.

It will be carried out using the platforms and tools that the University enables and any other whenever it allows clearly identify the students.

The works that the teacher determines will pursue that all the contents of the program are worked and will be valued -Class participation

- -Individual or group work carried out during the course
- -Test type control examination
- -Any other determined by the teacher

#### **BASIC BIBLIOGRAPHY**

- - CARLOS GALAN PASCUAL ¿El Derecho a la Ciberseguridad, cOoords. Tomás de la Quadra Salcedo y José Luis Piñar Mañas., (BOE, BOE, 2018)
- Agustín Madrid Parra María Jesús Blanco Sánchez Derecho mercantil y tecnología , Aranzadi Thomson Reuters ISBN 9788490992142; ISBN 9788490992166 (cub., 2018
- CARLOS GALAN La certificación como mecanismo de control de la inteligencia artificial en Europa, Documento de Opinión 46/2019, 2019
- Moises Barrio Andrés internet de las cosas, Reus 2018 ISBN 9788429020380, 2018 ISBN 9788429020380
- Solución para garantizar la privacidad en internet de las cosas Sánchez Alcón, José Antonio ; López Santidrián, Lourdes ; Fernán Martínez, José , ISSN: 1386-6710 El profesional de la información, 2015,

- Wolfgang Hoffmann-Riem Antonio López Pina Big Data : desafíos también para el Derecho , Civitas Thomson Reuters 2018 ISBN 9788491979142; ISBN 9788491979159 (cub.), 2018

# BASIC ELECTRONIC RESOURCES

- AEPD . AEPD: http://https://www.aepd.es/
- AGENCIA CATALANA DE PROTECCION DE DATOS . ACPD: http://https://apdcat.gencat.cat/es/inici/
- AGENCIA VASCA PROTECCION DE DATOS . AVPD: http://www.avpd.euskadi.eus/s04-5213/es/
- ENATIC . La piedra angular del Internet de las cosas: https://www.abogacia.es/2015/02/16/la-piedra-angular-delinternet-de-las-cosas/
- GALAN PASCUAL Y OTROS . ¿La Enciclopedia de los Servicios de Certificación para las administraciones locales ¿: http://http://femp.femp.es/files/566-2392-archivo/ID\_Digital\_VDigital.pdf