

# ARTIFICIAL INTELLIGENCE, ETHICS AND HUMAN RIGHTS

The Fourth Industrial Revolution is led by the unrelenting advance of artificial intelligence (AI) in almost all walks of public and private life. Technology developers, decision makers and stakeholders should all be aware of the opportunities and risks of the implementation of AI and analyse the situation from the viewpoint of human rights. Design ethics advocates the adoption of ethical principles throughout all the stages of technology design, development and implementation. Accessibility is one example where ethics, human rights and AI can play a key role in building a society that leaves no-one behind. This course combines theory and practice, providing specific tools for analysing AI digital systems design, development and implementation ethics.

- > ECTS credits: 2
- > Dates: 20-24 June 2022

## Recommended background knowledge for students:

- Students from AI-related technological backgrounds will be given priority

## Meet Our INSTRUCTORS



**Celia Fernández-Aller** has been associate professor in Law and Ethics at the UPM since 1998. She holds a PhD in Law and Technology. Her research interests include interdisciplinary studies on human rights based approach, data protection and legal implications of Big Data, Artificial Intelligence and the Internet of Things.



**Jesús Salgado Criado** is a part-time professor at UPM and member of the Iberdrola-UPM Partnership for Sustainable Development Goals based at the Innovation and Technology for Development Centre (itdUPM). Jesús has 20 year's management experience and has founded several startups.



**Víctor Rodríguez Doncel** holds a PhD in Computer Science and is associate professor at the School of Computer Engineering, where he leads several European projects at the Ontology Engineering Group. His research interests focus on the semantic representation of intellectual property, licences, contracts, and he is an active member of the W3C ODRL (Open Digital Rights Language) community group.



**Rafael Miñano Rubio** holds a BS in Mathematics and received his PhD from the UPM. He is a member of the GIOS research group, focusing on sustainable organizations. He has lengthy research experience at UPM and leads EELISA project activities.



**Sergio D'Antonio Maceiras** lectures at the UPM's Department of Software Systems. Sergio is a member of the UCM Digital Culture and Social Movements research group. His research interests are free software and culture, collaborative and open knowledge.



**Miguel Angel Valero Duboy** lectures at the School of Telecommunication Engineering. He was a director at CEAPAT, IMSERSO and Madrid City Council's Accessibility Department. He has lengthy experience as a principal investigator of Telemedicine and Accessibility projects.

## LEARNING OUTCOMES

### Recognize

Importance of non-technical (societal, ethical and legal considerations)



AI

### Be aware

Non-technical (societal, ethical and legal considerations)



AI

### Understand

Local, national and global challenges and conflicts



AI sustainability

### Experience

Sense of belonging, value and responsibility sharing



Human rights

## SYLLABUS

# MODULES

## 01 02 03 04 05

Basic concepts of Artificial Intelligence: technological aspects, fields of application, degree of implementation of the technology

Introduction to ethics in its AI-related dimensions

Opportunities (health, education, justice, social work, public administration, etc) and risks (biases, privacy, lack of governance, robot liability, other impacts on rights, lack of ethical guidance)

An ethics based on human rights: principles and their realization in AI

Methodologies for the ethical assessment of AI projects (practical session 3-4 hours). Students learn how to do a self-assessment of AI projects following a participatory approach (AI Ethics Canvas, Ethical foresight analysis).



**Mª Angeles Huerta** is an industrial engineer and lectures at the UPM's School of Industrial Engineering. She has led several Innovation and Technology for Development Centre (itdUPM) projects, like the Ethics and Digital Revolution university-business partnership.

## Meet Our INDUSTRY SPEAKER



**Matheus Tait** is managing director at THOUGHTWORKS, Spain.

"As technologists, we have a unique role to play in ensuring technology benefits all of society, toward a more equitable future. Our vision for social change inspires and motivates us to take collective action. We amplify, through our skill set, the work of our partners at the forefront of social movements."