UNIVERSIDAD POLITÉCNICA DE MADRID

UPM INTERNATIONAL SUMMER SCHOOL ANGLOTECH

# EXTENDED REALITY TECHNOLOGY AND EXPERIENCE

Virtual, Augmented and eXtended reality services will become ubiquitous in the coming years, changing how people communicate, work, and play. Compared to today's VR and AR capabilities for immersive gaming or simulation, we will in the future be able to attend a concert as if we were there, have dinner with a friend who lives on the other side of the world, or learn how to practice a complex heart operation with a digital representation of the actual patient. Future XR applications will make use of a complex mix of technologies to achieve a new generation of immersive experiences. The International Summer School on eXtended Reality Technology and eXperience aims to provide both an objective and clear overview and an in-depth analysis of the state-of-the-art research in eXtended Reality. For further information, see http://www.gti.ssr.upm.es/summer_school/

**Course duration: 25 contact hours**

**Dates: 18 to 21 July 2023**

**Student profile:**

- Postgraduate students, PhD students and researchers (both academic and industrial).

## LEARNING OUTCOMES

**Understand**

Key enabling technologies

XR systems: computer vision, computer graphics, audio processing, electronic devices, artificial intelligence and communication networks.

How to use XR enabling technologies

Best possible user experience: sense of presence, human-computer interaction.

## SYLLABUS

**MODULES**

I XR technologies

II Presence and immersion in XR

III Avatars

IV Social XR

V Interaction in XR

**SESSIONS**

I Industry session

II Demo session

III Interactive session

Meet Our

## INSTRUCTORS

**Jesús Gutiérrez**, Universidad Politécnica de Madrid.

**Narciso García**, Universidad Politécnica de Madrid.

**Mel Slater**, Universitat de Barcelona.

**Ana Serrano**, Universidad de Zaragoza (Spain).

**Ana Tajadura-Jiménez**, Universidad Carlos III de Madrid (UC3M) and University College London Interaction Centre (UCLIC).

**Dan Casas**, Universidad Rey Juan Carlos de Madrid.

**Telmo Zarraonandia**, Universidad Carlos III de Madrid.

**Mario Montagud**, Universidad de Valencia and i2CAT Foundation.

**Elena Márquez**, Universidad Carlos III de Madrid.

Meet Our

## INDUSTRY SPEAKERS

**Pablo Pérez**, Nokia XR Lab.

**Ester González-Sosa**, Nokia XR Lab.

**Mar González-Franco**, Google Labs.

Industry sessions and demos with **Inmersiva XR** *(https://inmersivaxr.com/asociacion#equipo)*