DIGITAL HUMANITIES (LM70)

(Università degli Studi)

Teaching VIRTUAL AND AUGMENTED REALITY APPLICATIONS

GenCod A004196

Owner professor Lucio Tommaso DE PAOLIS

Teaching in italian VIRTUAL AND AUGMENTED REALITY APPLICATIONS

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SSD code ING-INF/05

Reference course DIGITAL HUMANITIES

Course type Laurea Magistrale

Credits 12.0

Teaching hours Front activity hours: 84.0

For enrolled in 2022/2023

Taught in 2023/2024

Course year 2

Language ENGLISH

Curriculum COMUNE/GENERICO

Location

Semester Second Semester

Exam type Oral

Assessment Final grade

Course timetable
https://easyroom.unisalento.it/Orario

BRIEF COURSE DESCRIPTION

The course presents a review of current Virtual Reality (VR) and Augmented Reality (AR) technologies and provides a detailed analysis of the scientific and functional aspects of VR systems. The course also will introduce to the 3D modelling and the building of spatial augmented reality applications.

REQUIREMENTS

no requirements

COURSE AIMS

Students will be acquired knowledge in the main application of VR and AR technologies in cultural heritage.

TEACHING METHODOLOGY

The teaching consists of theoretical and practical lectures.

ASSESSMENT TYPE

The final exam consists in the discussion on the project developed by the student.

FULL SYLLABUS

- Introduction to the Virtual Reality technology
- Visualization devices
- Interaction in the virtual environment
- Introduction to the Augmented Reality technology
- Marker-based and markerless augmented reality applications
- Virtual and Augmented Reality in Cultural Heritage
- 3D modeling - Blender
- Spatial augmented reality (video mapping)
- Practical lectures in laboratory

REFERENCE TEXT BOOKS   MONTAGNA L., Realtà Virtuale e Realtà Aumentata, Hoepli, 2018

MANIELLO D., Realtà aumentata in spazi pubblici. Tecniche base di video mapping, Le Penseur, 2014

SIDDI F., Grafica 3D con Blender, Apogeo, 2009