Ph.D. Program in Electronics, Computer Science and Electrical Engineering

COURSE

3D Computer Graphics

Prof. Piercarlo Dondi, University of Pavia
Alessandro Gaggia, PhD, beSharp

OBJECTIVES: This course aims to give an overview of 3D Computer Graphics (CG) and of its current applications in both research and industry. The course will introduce the theoretical bases of 3D CG and will provide practical exercitations using Unity.

PROGRAM
- Lecture 1 – Introduction and Rendering Pipeline.
- Lecture 2 – Geometry, Transformations and Animation.
- Lecture 3 – Lightning, Shading and Texturing.
- Exercitation 1 – Introduction to Unity, 3D environment setup and interaction.
- Exercitation 2 – Development of a cross-platform 3D application in Unity.

EVALUATION: Students may choose between the development of a small project in Unity or the analysis of a research paper. Groups (up to 2 people each) are allowed for the project. In both cases students are required to give a short presentation to the class.

ATTENDANCE: The course will take place in the Aula Seminari Verde, Floor D.

LECTURES: 14h (6h theory, 8h exercitation)   **CREDITS:** 3 CFU

DATES:
- September 16th from 10:00 to 12:00 – Lecture 1
- September 17th from 9:00 to 13:00 – Lectures 2 and 3
- September 19th from 9:00 to 13:00 – Exercitation 1
- September 20th from 9:00 to 13:00 – Exercitation 2
- September 27th from 10:00 to 12:00 – Exam

Ph.D. Coordinator

Prof.ssa Ilaria Cristiani

Seminar in English
WEBSITE: https://vision.unipv.it/corsi/CG_2024/
EMAIL: piercarlo.dondi@unipv.it