



European Project Semester

PROJECT OUTLINE

Project dates: Mars – June 2025	
Title: Design and proposition for a virtual UTTOP (UTTOPverse2)	
Project activity areas: Information System, Internet, VR, AR, XR, communication, metaverse	Keywords: IS, VR, AR, XR,
Tutor's name and coordinates Client – End-user: UTTOP (direction) ENIT Technical Supervisor + contact: Cédrik BELER : cedrick.beler@uttop.fr	Project origin UTTOP
Project technical background: This project seeks to start to design and prototype a university campus metaverse for UTTOP. The long-term vision consists in integrating the <u>physical and digital dimensions of campus life to enhance learning, communication, and community engagement among students, professors, and all personal of UTTOP</u>. By leveraging 3D and XR technologies, the project will explore the feasibility, design, and implementation of various demonstrators within a virtual campus environment. It will be the continuation of a previous project that has led to virtual places for EPS students. It might focus this time on more “realistic” worlds.  • Feasibility Study: Assess the practicality of developing a university metaverse, focusing on dimensional accuracy, user interaction, and technological requirements. • Solution Exploration: Identify and evaluate both hardware and software solutions needed for the metaverse development, with a strong inclination towards OSS. • Demonstrator Development: Propose and prototype key demonstrators within the chose virtual entity • Technology Evaluation: Analyze the pros and cons of using native development tools versus WebXR and other web technologies for building the metaverse. • Virtual Space Prototyping: Create prototypes for various applications within the university context, including student life, lectures, and internship showcases.	
Studied topics: • Virtual worlds and avatar, digital identity • Ethics and privacy in digital worlds • Digital workplace & communities • Virtual Campus & Communication • Mixed Reality (WebXR, A-Frame, Unity, Godot...) • Spatial “realistic” representation and models (3D, geomatic, ...)	