

Code B_2760

Department	Civil - Environmental Engineering and Architecture
UniCa reference person	Dr. Eleonora Sottile
Project title in English	Evaluation of cycling propensity in hypothetical physical infrastructure project scenarios. Visual traditional techniques vs virtual reality.
Project title in Italian	Valutazione della propensione all'utilizzo della bicicletta per differenti scenari infrastrutturali. Tecniche tradizionali vs realtà virtuale.
Subject area of reference (World University Ranking)	ENGINEERING AND TECHNOLOGY
Project summary and VPS' profile	<p>The visit is dedicated to the construction of a research project focused on identifying physical infrastructure elements that can significantly contribute to increasing the propensity for bicycle usage. This will be achieved through the implementation of traditional techniques, such as 2D static images and videos, as well as more innovative techniques involving immersive virtual reality (VR). Specifically, the project aims to compare various approaches for the ex-ante evaluation of physical infrastructure design scenarios aimed at promoting cycling. This comparison will encompass the use of different techniques, from descriptive statistics to econometric models, and different indicators, such as physiological variables (e.g., heart rate, blood pressure, cerebral waves), and psychological factors. Part of the visit will be dedicated to organizing a series of seminars and lectures on the topics of Virtual Reality, cycling mobility, and the design of alternative infrastructure. The visiting professor should possess a deep understanding of transportation planning and be well-versed in the principles of cycling, urban mobility, and sustainable transportation. He/she has experience in the development of experiments using the Virtual Reality environment and an history of conducting high-impact research related to cycling mobility and evaluating the impacts, through mathematical models, of the implementation of actions (e.g. new cycling infrastructure) aimed at favoring the use of the bicycle for transportation purposes.</p>
Proposed length of stay	Short visit of 10 days
Expected period of activity	24th November 2024 - 3rd December 2024
Academic position of the VPS'	Professor
Course of Study	Laurea magistrale (2nd cycle University Degree), Dottorato di ricerca (PhD Course)
Language of instruction	Italian; English
