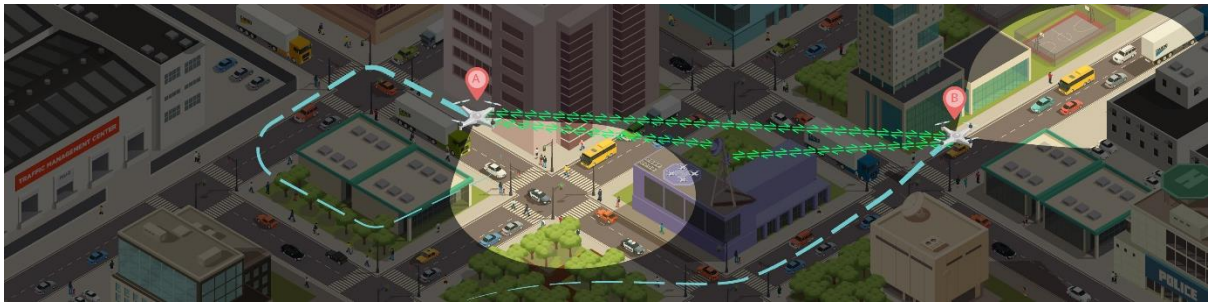
Real-Time Urban Mobility Management via Intelligent UAV-based Sensing

The “Real-Time Urban Mobility Management via Intelligent UAV-based Sensing” (URANUS) research project is an ERC Consolidator Grant awarded to Stelios Timotheou, Associate Professor in the Department of Electrical and Computer Engineering and faculty member of the KIOS Center of Excellence at the University of Cyprus.

URANUS proposes real-time, dynamic, and intelligent sensing of vehicular and pedestrian traffic via Unmanned Aerial Vehicles (UAVs), and the use of the collected information for urban mobility management. In this context, a holistic framework for real-time urban mobility monitoring and control, as well as UAV operational planning, is proposed. The solutions and tools to be developed can lead to step-change improvements in urban mobility with prominent environmental and socioeconomic benefits. URANUS is expected to transform our understanding of joint optimization of sensing, monitoring, and control not only in intelligent transportation systems but also in other UAV-centric fields.



The ERC Consolidator Grants are highly competitive and are given to excellent scientists, who have 7 to 12 years of research experience, to pursue their most promising ideas. According to the President of the ERC, Prof. Maria Leptin, “ERC Consolidator grants support researchers at a crucial time of their careers, strengthening their independence, reinforcing their teams and helping them establish themselves as leaders in their fields. And this backing above all gives them a chance to pursue their scientific dreams”.

In total, 2222 research proposals were submitted under the 2022 ERC Consolidator Grant call for proposals, under the categories of life sciences, physical sciences and engineering, and social sciences and humanities, and 321 were selected for funding.