



CyCLOPS 1st Semiannual Newsletter 2019

CyCLOPS Kickoff Meeting In Limassol

The kickoff meeting of CyCLOPS was successfully held in Limassol, Cyprus on February 20, 2019 with the participation of the project's partners and the stakeholders. The meeting was a great opportunity for all the involved organizations to meet and interact. Its purpose was to present to stakeholders such as the Department of Lands and Surveys, the Department of Geological Surveys, the Department of Public Works and the Electricity Authority of Cyprus who were among the participants, the project's mission and main outline, the technical objectives, the expected results and future opportunities. The meeting was welcomed by the Rector of C.U.T Prof. Andreas Anagiotos, who welcomed such initiatives, stressed the importance of this project and wished every success in its implementation. The last part of the meeting involved an open discussion, where the importance of developing such an infrastructure project for Cyprus was highlighted and the public institutions intention to cooperate and support the project was pledged, as its implementation is considered to be of strategic importance for the island of Cyprus.



The CyCLOPS consortium is comprised by the Cyprus University of Technology (CUT), Department of Civil Engineering and the German Aerospace Center (DLR) as a Partner from abroad. CUT Assistant Professor Chris Danezis is the project coordinator. The project is co-funded by European Regional Development Fund and the Republic of Cyprus through the Research Promotion Foundation under the *RESTART 2016 – 2020 Research, Technological Development and Innovation Program, Pillar I: Smart Development, New Strategic Infrastructure Units – Young Researchers*. It aims at the implementation of a Strategic Research infrastructure Unit for the monitoring of geohazards (i.e. earthquakes and landslides) and critical infrastructures that will lead to the production of critical country-wide products along with an innovative early warning system. These products include very accurate estimates of ground displacements, which combined with weather, geological, geotechnical and demographic datasets will lead to susceptibility and hazard maps.





Ground displacement estimation will be carried out using a cutting-edge integrated methodology, which utilizes the most prominent space technologies, namely GNSS and Synthetic Aperture Radar (SAR) satellite constellations. CyCLOPS will establish a new state-of-the-art network of permanent GNSS stations (CORS) and specifically designed SAR Corner Reflectors, along with precise weather stations and tilt-meters spread throughout Cyprus. The emerging infrastructure combined with the existing national infrastructure (national seismographic network, national GNSS networks etc.) is expected to provide high resolution estimates of ground displacement at the mm-level for the entire country. Furthermore, CyCLOPS will augment the national GNSS infrastructure, namely CYPOS and ATLAS, and increase the accuracy and reliability of positioning services in Cyprus.

ESA/ESRIN Project Presentation

Dr. Chris Danezis presented the project aims and implementation methods of the CyCLOPS research project, at the ESA-ESRIN Conference hosted in Frascati, Italy 27/2/2019



(<http://infrastructures2019.esa.int/>). The event was organised in thematic sessions with invited keynote presentations followed by round tables discussion aiming to collect inputs and suggestions for EO research and application development activities to be carried out in the next 2/3 years. The event was organized by the European Space Agency.





CyCLOPS project presentation at the RSCy2019

Assistant Professor Chris Danezis participated at the RSCy2019 “Seventh International Conference on Remote Sensing and Geoinformation of Environment” which took place on the 18th to 21st of March 2019 in Pafos, Cyprus. During the conference he gave an oral presentation entitled “The Investment in Strategic Space-based Research Infrastructure Units for a Resilient Society: The Case of CyCLOPS”, on the 19th of March 2019 (session 16:30 – 18:30). During the conference, he had the opportunity to promote CyCLOPS idea and discuss with stakeholders and scientists. He highlighted the importance and benefit for Cyprus from establishing a strategic infrastructure unit for natural hazards funded under the CyCLOPS Project.



Presentation of the CyCLOPS Project at the Cyprus Association of Rural & Surveying Engineers

14/04/2019, Platres – Dr. Chris Danezis presented the aims and objectives of the CyCLOPS project at a meeting of the Cyprus Association of Rural & Surveying Engineers, which expressed its official appreciation and support.

The Cyprus Association of Rural & Surveying Engineers was founded in 1979. Its mission is to promote and to protect its members’ rights, and to cooperate with the Cyprus Scientific and Technical Chamber for the recognition of the qualifications of its perspective members. Furthermore, it handles professional requests about collecting, analyzing, visualizing and sharing geospatial data information, and helps to promote a common policy among its members in dealing with the public of Cyprus.





JISDM2019 presentation of CyCLOPS



17/5/2019 – CyCLOPS and its ongoing progress were presented in [JISDM 2019](#) international conference held in Athens, Greece.

JISDM 2019 was organized by the National Technical University of Athens, Greece and is endorsed by the three leading scientific and professional organizations in the field; namely the International Federation of Surveyors (FIG) , International Association of Geodesy (IAG) and the International Society for Photogrammetry and Remote Sensing (ISPRS) .

JISDM carries the more than 40 years tradition of the FIG and IAG symposia in the field of deformation monitoring and more recently, the active sponsorship of the ISPRS. The symposium aims to connect research in deformation measurement, techniques, analysis and interpretation with advanced practice. Bringing together leading experts from academia, industry and representatives from public authorities with promising young scientists, the symposium has been established as a reference point for scientific discussion and interaction.

