

Andreas Kamilaris



Short Biography: Andreas received the BA degree in Computer Science from University of Cyprus in 2007 and the MS degree in Distributed Systems from the ETH University of Zurich, Switzerland in 2009. He performed his PhD at the University of Cyprus, focusing on the topic of "Enabling Smart Homes using Web Technologies" at the Computer Science department. During this time, he co-founded Elevate-Me Promotions, which was the first company that brought to Cyprus the radical-new concept of elevator advertising. After his PhD, Andreas performed postdoc research at the National University of Singapore, (studying techniques for reducing the ICT-based plug loads in offices and commercial buildings), at the University of Cyprus (project manager of the Social Electricity Online Platform European project), and at the Insight Centre for Data Analytics of the National University of Ireland (research related to real-time Internet-of-Things stream processing and large-scale data analytics for smart city applications). Andreas received a Marie Skłodowska-Curie fellowship in 2016, working at the Institute of Agriculture and Food Research and Technology (IRTA Barcelona), through the European P-SPHERE project, collaborating with the Autonomous University of Barcelona, performing research on big data analysis and applications in the agri-food sector. By April 2018, he has been working as an Assistant Professor at the Faculty of Electrical Engineering, Mathematics and Computer Science (EEMCS) of the University of Twente, the Netherlands. By October 2019, he is the leader of the SuPerWorld MRG at CYENS Centre of Excellence. During his career, Andreas has published more than 60 research papers, has received several awards and has co-founded three start-ups.

Presentation Title: Observing and modeling the physical world during climatic emergency

Abstract: Climatic emergency requires actions leading to the protection of the earth's important biospheres, such as forests, wetlands and oceans, protecting biodiversity and avoiding or reducing pollution. Large-scale monitoring of biospheres is important and can be achieved by combining various modern technologies such as Internet of Things and remote sensing, as well as techniques such as computer vision and geospatial analysis. At the Pervasive Real-World Computing for Sustainability (SuPerWorld) research group, we combine these technologies together to observe and model the physical world, providing guidelines and advice at policy-level for environmental conservation. In this talk, we show examples of performing census of endangered species, detecting invasive tree species in forests and illegal dumping in cities, creating land cover, digital surface and land change maps, as well as performing nutrient management in agricultural fields. Finally, we demonstrate how mobile phone computing can assist humans in disasters, considering COVID-19 pandemic and wildfires.