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The 9th International Conference on Remote Sensing and Geoinformation of Environment was held at Adams Beach Hotel in Ayia Napa, Cyprus between April 3 - 5, 2023. Organized by the ERATOSTHENES Centre of Excellence, this prestigious conference attracted more than 150 participants from 28 countries worldwide. The event brought together internationally renowned academics and industry professionals from various sectors, through the collaboration of the ERATOSTHENES Centre of Excellence, EXCELSIOR team, and the Cyprus Remote Sensing Society.

EXCELSIOR



RSCy 2023

3rd – 5th of April 2023

The Ninth International Conference on Remote Sensing and Geoinformation of Environment was held between April 3 - 5, 2023 in Agia Napa, Cyprus. The Conference started with a welcome from speakers such as Dr Kyriacos Themistocleous from ERATOSTHENES Centre of Excellence and Cyprus Remote Sensing Society, Myria Loizidou from the Cyprus Scientific and Technical Chamber (ETEK), Prof. Diofantos Hadjimitsis from ERATOSTHENES Centre of Excellence, Chrysanthos Pissarides, ICOMOS Cyprus, and the opening speech was given by the Deputy Minister of Research, Innovation and Digital Policy Mr Filippos Hadjizacharias.

Conference keynote speeches were given by Dr Zoltan Bartalis from ESA - European Space Agency, Prof. Dan Blumberg from Israel Space Agency, and Prof. Hesham El-Askary from the Egyptian Space Agency.



A panel discussion was held in the framework of the initiative of ERATOSTHENES Centre of Excellence, the Living Labs. Dr Speser was invited and participated in the Living Labs panel discussion with many stakeholders on the topics of Atmosphere and Agriculture where she discussed the advantages of the development of commercial products and the different options available. She outlined the services available by the Central Knowledge Transfer Office (CKTO), operated by the Research and Innovation Foundation (RIF) of Cyprus.

Prof. Andreas Anayiotos presented updates regarding all technology applications that are currently developed at the ERATOSTHENES Centre of Excellence and their applications in pilot studies. He stressed the importance of the commercial applications of the evolving tools and their use in Cyprus and the EMMENA region.



EXCELSIOR

2nd EXCELSIOR Plenary meeting

21st and 22nd of June 2023

The Second Plenary meeting of the EXCELSIOR H2020 Teaming Project was held on June 21st and 22nd, 2023, in physical presence at the Blue Economy Innovation Centre premises in Limassol. During the Review meeting, the EXCELSIOR Consortium updated the reviewers on the status of all Work Packages and discussed the ERATOSTHENES Centre of Excellence strategic plan and Sustainability, as well as future plans related to the EXCELSIOR project.



4th International Virtual Workshop: Earth Observation Research Trends in the EMMENA region 5th of July 2023

The 4th Annual Virtual EXCELSIOR Workshop entitled “Earth Observation Research Trends in the EMMENA region” took place on July 5th, 2023 and aimed to explore and discuss the latest trends and advancements in Earth observation research specific to the Eastern Mediterranean, Middle East and North Africa (EMMENA) region. Speakers from the EMMENA region presented current research trends in Earth Observation (EO) being performed in their region and the wider Mediterranean region. In the 4th Virtual Workshop, 12 invited talks and presentations were given by high-impact researchers from the EMMENA region. The Workshop also highlighted the importance of EO research for sustainable development, policy-making, and addressing regional environmental issues.



The banner features a dark blue background with a satellite view of Earth. A white box in the center contains the text: "Earth Observation Research Trends in the EMMENA region". A blue bar at the top left reads "4th Annual Virtual EXCELSIOR Workshop". On the right side, there is a vertical sidebar with the ERATOSTHENES CENTRE OF EXCELLENCE logo, a calendar icon for "Wednesday July 5, 2023", a clock icon for "10:00 – 15:00 EEST" and "07:00 – 12:00 UTC", a Zoom icon, and a QR code with a partially visible URL "https://cut".

Participation in Conferences

Participation at SPIE, the International Society for Optics and Photonics Defense + Commercial Sensing 2023 International Conference between April 30 - May 4, 2023, Orlando, FL, United States. Our Maritime Leader Dr George Melillos presented our maritime activities at the SPIE Defense + Commercial Sensing 2023 Conference in Orlando and gave a presentation on “Oil Spill Detection and monitoring in the Cyprus region”.



Our colleague Mrs Maria Prodromou attended the IEEE 2023 International Geoscience and Remote Sensing Symposium IGARSS in Pasadena, Los Angeles (July 16-21,2023), where she participated with an oral presentation in the session “Land Cover Dynamics I: Multispectral”. Her presentation focused on “Rapid Landslide Mapping Using Multi-Temporal Image Composites from Sentinel-1 And Sentinel-2 Imagery Through Google Earth Engine”.



Dr George Melillos and Mrs Eleftheria Kalogirou attended the SPIE Sensors + Imaging Conference, 2023, in Amsterdam, Netherlands, September 3-6, 2023, with two poster presentations. The presentations focused on “Monitoring coastal erosion in Cyprus: an analysis utilizing Sentinel-1 SAR data” and “Maritime surveillance in Cyprus using Sentinel-1 SAR”.



Participation in the European Researchers' Night 29th of September 2023

The ERATOSTHENES Centre of Excellence, and the Department of Civil Engineering and Geomatics of the Cyprus University of Technology participated in the European Researchers' Night 2022. The European Researchers' Night 2023 was organized by the Research and Innovation Foundation in Cyprus and took place at the State Fair in Nicosia on September 29th, 2023.

The European Researchers' Night is a Pan European event that celebrates research, innovation and science and aims to encourage the public to become familiar with the world of science and research. At the same time, the event aspires to strengthen the public image of researchers, whilst highlighting the important role they play in society.

Our team participated with two booths "Earth in Pixels" and "One image- infinite information", where people of all ages were informed about the science of Earth Observation and Remote Sensing. Our visitors also had the opportunity to play engaging games and brain-teasing quizzes.



Expert visit by Professor Ioannis Gitas

6th of April 2023

On April 6th, 2023, we had the opportunity to host the expert Prof. Ioannis Gitas from the Aristotle University of Thessaloniki to share knowledge and expertise with the ERATOSTHENES CoE staff.



Expert visit by Associate Professor Thomas Hasiotis

6th of April 2023

On April 6th, 2023, we had the opportunity to host another distinguished expert, Prof. Thomas Hasiotis from Aegean University, to share knowledge and expertise with the ERATOSTHENES CoE staff.



Stakeholders' training

6th of April 2023

On April 6, 2023, we had the opportunity to host a team from the Department of Geological Survey in Cyprus. An introductory course on Earth Observation (EO) and Remote Sensing (RS) was provided, followed by discussion on several topics for collaboration.



Visit from the University of Brasov

19th of April 2023

On April 19th, 2023, Dr Daniel Munteanu, Vice Rector of Transilvania University of Brasov (TUB) and a student delegation visited the ERATOSTHENES Centre of Excellence facilities in Limassol. They attended a presentation on the activities of the Center by Secretary and Functional Areas manager Prof. Andreas Anayiotos and discussed different possibilities of collaboration between TUB and ERATOSTHENES Centre of Excellence.



Workshop from the Deputy Ministry for Research Innovation and Digital Policy

27th of April 2023

On April 27th, 2023, during the workshop organised by the Deputy Ministry of Research Innovation and Digital Policy with the Governmental Departments and Ministries of Cyprus, we had the opportunity to meet and discuss with the President of the Cyprus Institute Prof. Stavros Malas and Prof. Jean Sciare Coordinator of the EMME – CARE. Both Centres of Excellence are working together with ad-hoc committees to promote more their existing collaboration.



Invited Lecture Global Faculty Week 2023

24th – 28th of April 2023

On April 24-28, 2023, Dr Christiana Filippou participated as invited Lecturer at Kaunas University of Technology during their “Global Faculty Week 2023” and presented the ERATOSTHENES Centre of Excellence.



Meeting with Ambulance Service

3rd of May 2023

On May 3rd, 2023, ERATOSTHENES Centre of Excellence hosted at its premises the Ambulance Service and Assistant Prof. Efthymoulos Kyriakos of the Department of Electrical Engineering, Computer Engineering and Informatics of CUT. Prof. Diofantos Hatzimitsis, Mr Andreas Christofi, Dr Marios Tzouvaras, Dr Christodoulos Mettas, Mr Evagoras Mettas and Mrs Maria Prodrinou were present on behalf of the ERATOSTHENES CoE.



Meeting with Deputy Ministry of Research, Innovation & Digital Policy

3rd of May 2023

On May 3rd, 2023, a representative of the Deputy Ministry of Research, Innovation & Digital Policy, Mr Petros Petrides, visited the premises of the ERATOSTHENES Centre of Excellence, for an exchange of ideas.



Europe Day in Limassol and Nicosia

7th and 13th of May 2023

On May 7th and 13th, 2023, ERATOSTHENES Centre of Excellence participated in the initiative of the Limassol Municipality as one of the 100 cities selected by the Mission for Climate Neutral and Smart Cities, to inform the public.



Teaming Together meeting with the seven Centres Of Excellence in Cyprus

8th of May 2023

On May 8th, 2023, CMMI hosted a ‘Teaming Together’ meeting of the 7 Centres of Excellence established in Cyprus. The topic of sustainability was high on the agenda of the meeting discussion. Directors and representatives of the Cyprus Centres of Excellence had the chance to discuss with Mr Philippos Hadjizacharias, Deputy Minister for Research, Innovation and Digital Policy, Dr Stelios Himonas, Permanent Secretary of DMRID, and Mr Theodoros Loukaidis, Director-General of the Research and Innovation Foundation. Mr Andreas Vyras, Mayor of Larnaka was also present.



Representatives from the International Science and Technology Center at ERATOSTHENES CoE premises

11th of May 2023

On May 11th, 2023, we had the opportunity to meet the representatives from the "The International Science and Technology Center" ISTC - PPRD Med project.



Professor Andreas Anayiotos in the Cyprus Institute Colloquium

Prof. Andreas Anayiotos participated as an invited speaker in the Colloquium, organized by the Cyprus Institute in the thematic area of “The Changing Landscape of Research, Innovation and Entrepreneurship in Cyprus”.

For further information, visit:

<https://www.youtube.com/watch?v=uMcD50GqX60>.



Participation at Cyprus National Workshop "Satellite-based Services for Disaster Risk Management" 16th of May 2023

Our colleagues from ERATOSTHENES CoE and the Cyprus University of Technology, Associate Professor Chris Danezis and Dr Kyriacos Themistocleous, presented on May 16th, 2023 at Hilton Hotel in Nicosia at the Cyprus National Workshop "Satellite-based Services for Disaster Risk Management" the following:

- Cyprus Continuously Operating Natural Hazards Monitoring & Prevention System (CyCLOPS) project.
- Use cases of satellite-based services for Disaster Risk Management.

At the same event, Prof. Diofantos Hadjimitsis, coordinator of the EXCELSIOR project and Managing Director of the ERATOSTHENES Centre of Excellence, Mr George Komodromos, Director of the Department Electronic Communications and Mr Petros Petrides from the Deputy Ministry of Research, Innovation & Digital Policy, met with Dominique Timans, President of Eurisy.



Meeting at the Flora Information Center of Akamas

18th of May 2023

On May 18th, 2023, representatives of the ERATOSTHENES Center of Excellence had the opportunity to visit the Turtle Museum in the community of Innea and the Bird Fauna and Terrestrial Flora Information Center of Akamas in Kathekas on the initiative of the Mayor of Polis Chrysochous.



Participation at the Info day of CYNET 19th of May 2023

On May 19th, 2023, our team participated in the Information Day of the "CYNET and Amazon Web Services for the Academic and Research Community" at Lemon Park Venue, Nicosia.



Meeting with the Port and Marine Police 22nd of May 2023

On May 22nd, 2023, our team members Dr Melillos, Mrs Makri and Mrs Kalogirou visited the Port and Marine Police and had the opportunity to discuss opportunities for collaboration through the EXCELSIOR H2020 Teaming Project.



Training at the Cyprus Institute 23rd and 24th of May 2023

On May 23rd and 24th, 2023, members from our team participated in the training "Data analytics in the era of large-scale machine learning" that was organized by The Cyprus Institute.



Meeting with the Hellenic Centre for Marine Research

25th of May 2023

On May 25th, 2023, the Maritime Safety and Security Sector had an online meeting with the Hellenic Centre for Marine Research (HCMR). This was the first meeting dedicated to exploring maritime topics for potential collaboration, addressing the possibility of signing a Memorandum of Understanding (MoU).



Training on Living Labs

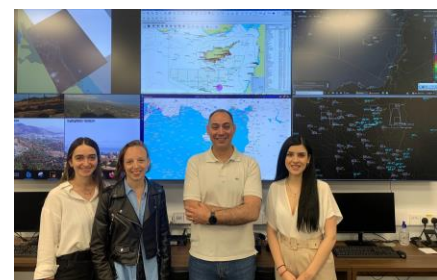
26th of May 2023

On May 26th, 2023, the first training in Living Labs between Atmospheric and Agriculture teams was held. The two clusters worked together on assignments towards the implementation of ERATOSTHENES Centre of Excellence Living Labs



Meeting with the Joint Rescue Coordination Centre

On May 26th, 2023, the Maritime Safety and Security team of the ERATOSTHENES Centre of Excellence held a meeting with representatives from the Joint Rescue Coordination Centre (JRCC) to exchange ideas for a potential collaboration.



Participation at Waterverse project stakeholders meeting

On June 2nd, 2023, the Water Cluster of ERATOSTHENES Centre of Excellence participated in the 1st Stakeholders Meeting of the WATERVERSE project to be informed about the scope of the project and exchange ideas for potential collaborations.



Meeting with the Department of Agriculture

Ministry of Agriculture and Rural Development and Environment

On June 2nd, 2023, we had a meeting with the Department of Agriculture, Ministry of Agriculture, Rural Development and Environment (Cyprus). We had the opportunity to present the EXCELSIOR project, the ERATOSTHENES Centre of Excellence (Agriculture sector) activities and exchange ideas for potential collaborations. Several funded projects of the ERATOSTHENES CoE such as Carbonica were also presented.



Meeting of the Union of the Mediterranean Regional Dialogue Platform 5th to 7th of June 2023

Between June 5-7, 2023, our project manager at EXCELSIOR & Business Development Director at ERATOSTHENES CoE, Dr Kyriacos Themistocleous, with Prof. George Boustras from the Centre-of-Excellence in Risk and Decision Sciences of the European University Cyprus (CERIDES), participated in the High-Level Event "Climate change and Civil protection – Towards an efficient Euro-Mediterranean Cooperation" & Launch of PPRD MED & Other UCPM programmes & Second meeting of the Union of the Mediterranean Regional Dialogue Platform. The meeting was held in Rome, Italy.



Meeting with Mr Nikolas Kioussis

7th of June 2023

On June 7th, 2023, a meeting was held at the premises of ERATOSTHENES Centre of Excellence between the ERATOSTHENES Centre of Excellence, Cyprus University of Technology and Mr Nikolaos Kioussis, Commercial & Cultural Attaché Grand Duchy of Luxembourg. Professor Diofantos Hadjimitsis presented the EXCELSIOR project and ERATOSTHENES CoE other activities. We agreed to open new horizons for collaboration with the Luxembourg ecosystem.



Expert visit by Dr Christian Rossi 6th of June 2023

On June 6th, 2023, Dr Christian Rossi visited our premises and presented: "A journey through Earth Observation: from basics to applications".



Meeting with H.E. Ambassador of Italy 13th of June 2023

On June 13, 2023, we hosted in our premises at ERATOSTHENES CoE, the H.E. Ambassador of Italy Mrs. Ferrari Bravo after the kind invitation from our colleague at the ERATOSTHENES CoE Dr Dante Abate. Prof. Diofantos Hadjimitsis presented the EXCELSIOR and the ERATOSTHENES Centre of Excellence activities. He also highlighted and presented the involvement of several partners from Italy in different funded projects of the Centre and the Cyprus University of Technology team. We agreed to promote the ERATOSTHENES CoE to the Italian space ecosystem in the forthcoming period and organize some common events to strengthen more our excellent collaboration.



Participation at Copernicus Atmosphere Monitoring Service (CAMS) 7th General Assembly 13th -15th of June 2023

The Copernicus Atmosphere Monitoring Service (CAMS) held its seventh General Assembly between June 13 - 15, 2023 in Spain. Dr Silas Michaelides, the Chief Operating Manager of the ERATOSTHENES Centre of Excellence participated in the CAMS event. Dr Rodanthi Mammouri, Dr Dragos Ene and Dr Argyro Nisantzi from the ERATOSTHENES CoE and Cyprus University of Technology joined the meeting online.



First Workshop for Marine Safety and Security Sector 23rd of June 2023

On June 23rd, 2023, the ERATOSTHENES CoE Marine Safety and Security Sector organized their first Workshop for Marine Safety and Security with the participation of stakeholders interested in the Marine Area. Experts from the ERATOSTHENES Centre of Excellence and the German Aerospace Center, DLR, also participated in the event.



“ALLIVE” information day 27th of June 2023

The Atmosphere Living Lab Innovation-Validation-Exploitation “ALLIVE” info-day was held on June 27th, 2023.

In this event, we aimed to determine the needs and the interests of the local stakeholders in the view of Remote-sensing and Earth Observation. We discussed the atmosphere, atmospheric phenomena particles, and solar radiation in domains like health, aviation and fire risk assessment.



Meeting with the Representative of the Cyprus Children’s Parliament 1st of July 2023

On July 1st, 2023, the Press representative of the Cyprus Children's Parliament visited the ERATOSTHENES Centre of Excellence premises in Limassol.

The representative was informed by Dr Christiana Papoutsas and the ERATOSTHENES CoE staff about the EXCELSIOR project and the ERATOSTHENES CoE's other activities.



Agriculture Living Lab Information Day 7th of July 2023

On July 7th, 2023 we organized the “ERATOSTHENES CoE Agriculture Living Lab Information Day, aiming to cultivate a sustainable future for our food systems. In this event, we also determined the needs and interests of the local stakeholders in the view of Remote-sensing and Earth Observation



Ministry of Energy, Commerce and Industry 17th of July 2023

On July 17th, 2023, we held a meeting with the Ministry of Energy, Commerce and Industry to discuss future cooperation with the ERATOSTHENES Centre of Excellence.



Meeting with Dr Kyriacos Hadjiyiannis MP 27th of July 2023

On July 27, 2023, we had the pleasure of hosting Dr Kyriacos Hadjiyiannis, MP at our premises. Dr Hadjiyiannis had the chance to meet our team and get to know our research activities. The introduction was followed by a fruitful discussion on the challenges that researchers in Cyprus face and how these can be overcome.



Meeting with Lumoscribe LTD

27th of July 2023

On July 27th, 2023, we had a meeting with Lumoscribe LTD to discuss fields of common interest and the potential for future collaboration in research proposals.



Meeting with Prof. George Boustras 27th of July 2023

On July 27th, 2023, we had a meeting with Prof. George Boustras from the Centre-of-Excellence in Risk and Decision Sciences of the European University Cyprus (CERIDES) to discuss applications of common interest in prevention, management, and mitigation of fire events.

Prof. George Boustras is an appointed advisor of the President of Cyprus in crisis management and civil protection.



Participation at the European Meteorological Society Annual Meeting 3-8 of September 2023

Our colleague Georgia Charalambous participated in the European Meteorological Society Annual Meeting 2023 that took place in Bratislava, Slovakia & Online, between September 3-8, 2023 and presented some of the activities of the solar radiation and energy group, during two oral presentations: "Dust impact on surface solar radiation levels in Cyprus" in the framework of our collaboration with the CARE-C Cyl and "The capacity of ERATOSTHENES Centre of Excellence to estimate cloud radiative effects: the CyCARE campaign"



ISPRS Geospatial Week 2023 2nd -7th of September 2023

ISPRS Geospatial Week 2023 hosted 29 workshops representing state-of-the-art and future trends in Geospatial Technologies between September 2-7, 2023, at the InterContinental Cairo Semiramis hotel in Egypt. Our team participated in the ISPRS Geospatial Week 2023 with the following presentations:

1. Kyriacos Themistocleous, Maria Prodromou
“The impact of dust pollution from unpaved roads in the Akamas peninsula, Cyprus using UAV and Sentinel-2 images”
2. Georgios Giannarakis, Ilias Tsoumas, Stelios Neophytides, Christiana Papoutsas, Charalampos Kontoes, Diofantos Hadjimitsis
“Understanding the impacts of crop diversification in the context of climate change: A machine learning approach”
3. Marios Tzouvaras, Stavroula Alatzas, Maria Prodromou, Christos Theodoridis, Kyriaki Fotiou, Athanasios Argyriou, Constantinos Loupasakis, Alexis Apostolakis, Zampela Pittaki, Mariza Kaskara, Charalampos Kontoes, Diofantos Hadjimitsis
“Synergy of advanced processing techniques using copernicus SAR and optical satellite imagery to detect ground displacements: the case studies of Pyrgos and Parekklesia villages in Cyprus”.



Participation at the Parliamentary Committee on Energy, Commerce, Industry and Tourism on 12th of September 2023

On September 12th, 2023, ERATOSTHENES Center of Excellence representatives visited the House of Representatives and participated in the session of the Parliamentary Committee on Energy, Commerce, Industry and Tourism, together with the other Centers of Excellence in Cyprus.



Participation at Copernicus Climate Change Service (C3S) General Assembly in Brno, Czechia 13th of September 2023

On September 13th, 2023, our Chief Operating Manager, Dr Silas Michaelides, participated at the 6th Copernicus Climate Change Service (C3S) General Assembly in Brno, Czechia.



Training from the National Observatory of Athens 19th of September 2023

On September 19th, 2023, Dr Alexia Tsouni of Beyond EO Centre (NOA) gave a seminar on holistic multi-parameter flood risk assessment and management planning at high spatial resolution.



Participation at Reflect Festival 20th and 21st of September 2023

On September 20th and 21st, 2023, the ERATOSTHENES Centre of Excellence participated with a booth Exhibition, at Reflect Festival.



Participation at the International Conference on Meteorology, Climatology, and Atmospheric Physics "COMECAP

Dr Konstantinos Fragkos participated in the 16th International Conference on Meteorology, Climatology, and Atmospheric Physics "COMECAP 2023," which took place in Athens, Greece and online, between September 25-29, 2023. He presented some of the activities of the Solar Radiation and Energy Group during an oral presentation titled "Introducing the Solar Radiation and Energy Laboratory of the ERATOSTHENES Centre of Excellence".



Meeting at the Deputy Ministry of Research, Innovation & Digital Policy

On September 27th, 2023, Dr Christiana Papoutsas presented Artificial Intelligence Applications in Smart Agriculture in the framework of the meeting of the Deputy Ministry of Research, Innovation & Digital Policy on the topic "Artificial Intelligence as a factor creating a development perspective".



Participation at the 2nd Teaming Club Conference 28th and 29th of September 2023

Our team members Dr Silas Michaelides and Ms Eleni Loulli participated at the 2nd Teaming Club Conference, hosted by InnoRenew CoE in Izola, Slovenia between September 28-29, 2023. Ms Loulli delivered a presentation about Carbonica EU project and shared the ERATOSTHENES CoE journey in shaping an Excellence Hub for carbon farming innovation ecosystems across Cyprus, Greece, and North Macedonia. Dr Silas Michaelides provided an overview of our team's diverse scientific activities, with the aim of fostering synergies and cultivating fresh collaborations with other Centers of Excellence.



Invited talks

In the framework of the EXCELSIOR H2020 Teaming Project education activities, we organize invited talks on a regular basis.



INVITED TALK

Monitoring Environmental and Physical Deprivation in Urban Areas using Advancements in Earth Observation

Monika Kuffer,
University of Twente, The Netherlands
Associated Professor

ERATOSTHENES 1 CENTRE OF EXCELLENCE

25/05/2023
12:00 EST (9:00 UTC)
10:00 (via URL, Berlin)

<https://www.youtube.com/watch?v=TgHw3hmHUPg>

CONTRIBUTORS: 

Date: **25/05/2023**

Topic: **Monitoring Environmental and Physical Deprivation in Urban Areas Advancements in Earth Observation**

Speaker: **Dr Monika Kuffer**

Link:

<https://www.youtube.com/watch?v=TgHw3hmHUPg>



INVITED TALK

Filling the gaps: AI and Earth Observation in support of urban sustainability in the Global South

Stefanos Georganos,
Karlstad University, Sweden
Associate Professor

ERATOSTHENES 1 CENTRE OF EXCELLENCE

09/06/2023
12:00 EST (9:00 UTC)
10:00 (via URL, Berlin)

<https://www.youtube.com/watch?v=jBemsgHYIMA>

CONTRIBUTORS: 

Date: **09/06/2023**

Topic: **AI and Earth Observation in support of urban sustainability in the Global South**

Speaker: **Dr Stefanos Georganos**

Link:

<https://www.youtube.com/watch?v=jBemsgHYIMA>

MoU Agreements of the ERATOSTHENES Centre of Excellence

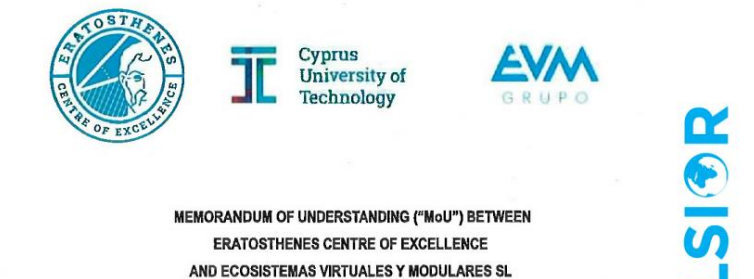
On May 12th, 2023, Dr Konstantinos Panagiotou, initiated a collaboration between ERATOSTHENES CoE and the National Institute of Agronomy (Tunisia). Memorandum of Understanding has been signed between the two organisations with the main aim to initiate scientific cooperation and capacity building in fields of common interest.



On April 25th, 2023, Prof. Andreas Anayiotos on behalf of ERATOSTHENES Centre of Excellence discussed different fields of collaboration with Daniel Munteanu Vice Rector Transilvania University of Brasov and signed an MoU.



On July 7th, 2023, the Managing Director of ERATOSTHENES Centre of Excellence, Prof. Diofantos Hadjimitsis signed an MoU with Ecosistemas Virtuales y Modulares SL (EVM) represented by Director Pablo Javier Diaz Cruz.



MoU Agreements of the ERATOSTHENES Centre of Excellence

On June 27th, 2023, the Managing Director of ERATOSTHENES Centre of Excellence Prof. Diofantos Hadjimitsis signed an MoU with SURE Competence Centre represented by Director Olga Markogiannaki.



An MoU has been signed with the Department of Geoinformatics (Z_GIS) at the Paris Lodron Universität Salzburg. The MoU on behalf of the ERATOSTHENES Centre of Excellence has been signed by Prof. Diofantos Hadjimitsis and on behalf of the Paris Lodron Universität Salzburg, the MoU has been signed by Associate Professor Dirk Tiede, Deputy Head of Z_GIS.



On behalf of the Mediterranean Agronomic Institute of Chania, Prof. Chariton Kalaitzides, Research and Studies Coordinator of the Geoinformation in Environmental Management programme, met with Prof. Diofantos Hadjimitsis and initiated a collaboration. The MOU on behalf of the Mediterranean Agronomic Institute of Chania has been signed by their Director, Dr George Baourakis.



Selected Recent Journal Publications

Eliades, Marinos, Silas Michaelides, Evagoras Evagorou, Kyriaki Fotiou, Konstantinos Fragkos, Georgios Leventis, Christos Theocharidis, Constantinos F. Panagiotou, Michalis Mavrovouniotis, Stelios Neophytides, and et al. 2023. "Earth Observation in the EMMENA Region: Scoping Review of Current Applications and Knowledge Gaps" *Remote Sensing* 15, no. 17: 4202. <https://doi.org/10.3390/rs15174202>

R. Teeuw, M. Cannata, A. V. Argyriou and O. Lieberman, "Geoinformatics for Caribbean hurricane risk management and improved community resilience," 2023 Joint Urban Remote Sensing Event (JURSE), Heraklion, Greece, 2023, pp. 1-4, doi: 10.1109/JURSE57346.2023.10144191

Prodromou, M., Cerra, D., Themistocleous, K., Schreier, G., Krauss, T., and Hadjimitsis, D.: THE IMPORTANCE OF EARTH OBSERVATION FOR MONITORING CULTURAL HERITAGE SITES AFFECTED BY FIRE EVENTS: THE CASE STUDY OF ARAKAPAS, CYPRUS USING SENTINEL 2 DATA, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLVIII-M-1-2023, 263–269, <https://doi.org/10.5194/isprs-archives-XLVIII-M-1-2023-263-2023>, 2023.

Papachristoforou A, Prodromou M, Hadjimitsis D, Christoforou M. 2023. Detecting and distinguishing between apicultural plants using UAV multispectral imaging. *PeerJ* 11:e15065 <https://doi.org/10.7717/peerj.15065>

Floutsi, A. A., Baars, H., Engelmann, R., Althausen, D., Ansmann, A., Bohlmann, S., Heese, B., Hofer, J., Kanitz, T., Haarig, M., Ohneiser, K., Radenz, M., Seifert, P., Skupin, A., Yin, Z., Abdullaev, S. F., Komppula, M., Filioglou, M., Giannakaki, E., Stachlewska, I. S., Janicka, L., Bortoli, D., Marinou, E., Amiridis, V., Gialitaki, A., Mamouri, R.-E., Barja, B., and Wandinger, U.: DeLiAn – a growing collection of depolarization ratio, lidar ratio and Ångström exponent for different aerosol types and mixtures from ground-based lidar observations, *Atmos. Meas. Tech.*, 16, 2353–2379, <https://doi.org/10.5194/amt-16-2353-2023>, 2023.

Antonescu, B., Ene, D., Boldeanu, M. et al. Future changes in heatwaves characteristics in Romania. *Theor Appl Climatol* (2023). <https://doi.org/10.1007/s00704-023-04412-5>

Mamouri, R.-E., Ansmann, A., Ohneiser, K., Knopf, D. A., Nisantzi, A., Bühl, J., Engelmann, R., Skupin, A., Seifert, P., Baars, H., Ene, D., Wandinger, U., and Hadjimitsis, D.: Wildfire smoke triggers cirrus formation: Lidar observations over the Eastern Mediterranean (Cyprus), *EGUsphere* [preprint], <https://doi.org/10.5194/egusphere-2023-988>, 2023.

Conference Publications

The use of remote sensing data for the fire damage assessment in a burnt area in Cyprus
Open Access Paper
Maria Prodromou, Ioannis Gitas, Kyriacos Themistocleous, Argyro Nisantzi, Rodanthi-Elisavet Mamouri, Dragos Ene, Chris Danezis, Johannes Bühl, Diofantos Hadjimitsis
Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 1278608 (2023) <https://doi.org/10.1117/12.2685554>

The potential of using satellite remote sensing for identifying the impact of climate change on existing reinforced concrete (RC) structures Paper
Stella Stylianou, Christiana A. Filippou, Elia Tantele, Renos Votsis, Nicholas Kyriakides
Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 127860Z (2023) <https://doi.org/10.1117/12.2682040>

Satellite ozone and UV measurements over Cyprus Paper
G. Charalampous, K. Fragkos, A. Nisantzi, I. Fountoulakis, K. Papachristopoulou, D. Hadjimitsis, S. Kazadzis
Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 1278610 (2023) <https://doi.org/10.1117/12.2683103>

A holistic high-resolution monitoring approach in studying coastal erosion of a highly touristic beach, Coral Bay, Cyprus Paper
Thomas Hasiotis, Olympos Andreadis, Antonis Chatzipavlis, Christodoulos Mettas,

Evagoras Evagorou, Josefina Kountouri, Diofantos Hadjimitsis, Dimitris Christofi, Myria Loizidou, et al.
Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 1278611 (2023) <https://doi.org/10.1117/12.2682605>

Building of a database for Cyprus beaches Paper
I. Monioudi, D. Chatzistratis, Th. Chalazas, C. Savva, T. Hasiotis, A. Velegrakis, J. Kountouri, C. Mettas, E. Evagorou, et al.
Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 1278612 (2023) <https://doi.org/10.1117/12.2682612>

Ship detection using SAR images based on YOLO (you only look once) Paper
George Melillos, Eleftheria Kalogirou, Despoina Makri, Diofantos G. Hadjimitsis
Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 1278613 (2023) <https://doi.org/10.1117/12.2681665>

Creating a strong rain danger map for Cyprus Open Access Paper
Thomas Krauss, Christodoulos Mettas, Josefina Kountouri, Constantinos F. Panagiotou, Athanasios V. Argyriou, Evagoras Evagorou
Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 1278617 (2023) <https://doi.org/10.1117/12.2681731>

Conference Publications

Comparative analysis of Sentinel-1 and PlanetScope imagery for flood mapping of Evros River, Greece Paper

Christos Theocharidis, Athanasios V. Argyriou, Alexia Tsouni, Mariza Kaskara, Charalampos Kontoes

Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 127861B (2023)

<https://doi.org/10.1117/12.2682775>

Impact assessment of the catastrophic earthquakes of 6 February 2023 in Turkey and Syria via the exploitation of satellite datasets Open Access Paper

Kyriaki Fotiou, Athanasios V. Argyriou, Stavroula Alata, Christos Theocharidis, Constantinos Loupasakis, Maria Prodromou, Alexis Apostolakis, Zambella Pittaki-Chrysodonta, Mariza Kaskara, et al.

Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 127861C (2023)

<https://doi.org/10.1117/12.2682926>

Wind speed and direction estimation from radar SAR using Sentinel-1 in the Cyprus region Paper Eleftheria Kalogirou, George Melillos, Diofantos G. Hadjimitsis

Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 127861G (2023)

<https://doi.org/10.1117/12.2681683>

Enhancing risk assessment and monitoring for cultural heritage sites through data cubes: a multidimensional approach Paper Georgios Leventis, Athanasios Argyriou, Daniele Cerra, Diofantos Hadjimitsis

Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 127861I (2023)

<https://doi.org/10.1117/12.2683023>

Determination of heavy metals in soils using diffuse reflectance spectroscopy: a case study in Northern Greece Paper

George Galanis, Dimitris Gkoutzikostas, Vasilis Rousonikolos, Nikoletta Tiliopoulou, Argyro Papastergiou, Kostas Karyotis, George Zalidis

Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 127861J (2023)

<https://doi.org/10.1117/12.2683122>

The effect of business models in the financial viability and competitiveness as advisory tools in the Greek dairy cow sector Open Access Paper

Maria Tsiouni, Christos Konstantinidis, George Kountios, Dimitrios Gourdouvelis, Christiana Papoutsas, Georgios Papadavid

Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 127861N (2023)

<https://doi.org/10.1117/12.2682700>

Conference Publications

Detect plastic litter in Cyprus region using Sentinel-2 Open Access Paper

Eleftheria Kalogirou, Despoina Makri, Josefina Kountouri, Thrasos Stylianos, Kyriakos Themistokleous, Christiana Papoutsas, George Melillos, Diofantos G. Hadjimitsis

Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 127861Y (2023)

<https://doi.org/10.1117/12.2681679>

Identification and forecasting of coastal erosion using aerial and UAV images Open Access Paper

K. Themistocleous

Proceedings Volume Ninth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2023), 127861Z (2023)

<https://doi.org/10.1117/12.2683057>

Newly funded projects

CERBERUS has been granted under HORIZON-RIA. CERBERUS entitled “Multiplatform Field Surveillance for Integral Crop Health, Early Detection and Actuation” will capitalize on early detection to reduce pesticide use and on intelligent spray applications to sustainably eradicate pests at their early stages. The project will combine large-scale crop observation models enhanced by Copernicus, IoT insect traps and robot-based monitoring. Data coming from multiple sources will be combined to produce risk maps and spraying recommendations for users by applying AI algorithms.

School/ University visits

Primary School of Agias Napas-Antoni Tsokkou 28th of April 2023

On April 28th, 2023, Dr Varvaris from ERATOSTHENES Centre of Excellence gave a talk on "Earth Day" to students at the Primary School of Agia Napa - Antoni Tsokkou and the Primary School of Xylofagou, under the coordination of the Research and Innovation Foundation. The talk focused on environmental issues, specifically the climate change crisis caused by the intensification of the greenhouse effect and its resulting consequences. The students were also introduced to the concept of remote sensing and how the ERATOSTHENES CoE utilizes satellite data for monitoring environmental threats.



Neapolis University Paphos 26th of June 2023

On June 26th, 2023, our colleague Stelios Neophytides was invited by Lumoscribe at Neapolis University Paphos to give a talk about Data Cubes and AI for Earth Observation.



Secondment at NOA

Our colleague Stelios Neophytides was hosted by Dr Harris Kontoes and Beyond EO Centre NOA at their premises in Athens, Greece, as a part of his secondment.



EXCELSIOR in the media



Strong presence in the Media for the Managing Director of ERATOSTHENES Centre of Excellence Prof. Diófantos Hadjimitsis and other team members. Radio, TV broadcasts and newspaper articles are some of the highlights.

και τρόπος ζωής

εδραίωση της Κύπρου ως ένα σύγχρονο και καταξιωμένο κέντρο Εκπαίδευσης, Ερευνητικής Αριστείας, Καινοτομίας και Επιχειρηματικότητας, με στόχο την αναβάθμιση της οικονομίας και της κοινωνίας γενικότερα.

Ποιος είναι ο Διόφαντος Χατζημιτσής;

Ο Δρ. Διόφαντος Γλ. Χατζημιτσής είναι Διευθύνων Σύμβουλος του Κέντρου Αριστείας «Ερατοσθένης» του Τεχνολογικού Πανεπιστημίου Κύπρου (από το 2020), είναι συντονιστής του έργου «EXCELSIOR» H2020 TEAMING συνολικού προϋπολογισμού πέραν των 38 εκατ. Ευρώ (από το 2019), καθηγητής του Τμήματος Πολιτικών Μηχανικών και Μηχανικών Γεωπληροφορικής (ΠΟΜΗΓΕ) του Τεχνολογικού Πανεπιστημίου Κύπρου και υπεύθυνος του εργαστηρίου Τηλεπισκόπησης και Γεωπεριβάλλοντος του Τμήματος ΠΟΜΗΓΕ στο ΤΕΠΑΚ από το 2007. Είναι Αντιπρόεδρος (από το 2021) και μέλος (από το 2016) του Φορέα Διασφάλισης και Πιστοποίησης της Ποιότητας της Ανώτερης Εκπαίδευσης (ΔΙΠΑΕ). Διετέλεσε Αντιπρύτανης Ακαδημαϊκών Υποθέσεων του ΤΕΠΑΚ από το 2016 μέχρι το 2020 και Πρόεδρος του Τμήματος Πολιτικών Μηχανικών και Μηχανικών Γεωπληροφορικής του Τεχνολογικού Πανεπιστημίου Κύπρου. Είναι συντονιστής του δικτύου της NASA «The Mediterranean Regional Information Network» (MedRIN) στην Ανατολική Μεσόγειο (από το 2018) σε θέματα διαστημικών τεχνολογιών και παρατήρησης γης. Συμπεριλαμβάνεται στους καταλόγους με τους κορυφαίους ερευνητές παγκοσμίως, οι οποίοι δημιουργούνται στο Πανεπιστήμιο Stanford των



Distinctions

The scientific committee of the 4th ATLAS GEORESOURCES INTERNATIONAL CONGRESS (AGIC2023) awarded our member, Dr Konstantinos Panagiotou, with a Certificate of Appreciation as a recognition of his outstanding contribution as a speaker and tutor in the workshop with the title "Application of Unsupervised Machine Learning Models and Traditional Geostatistical Methods to Assess the Status of Groundwater Systems in Tunisia", held on March 20th, 2023 at the Diar Lemdina Hotel in Hammamet, Tunisia.



Genetic and Evolutionary Computation Conference
GECCO 2023



Our team member Dr Michalis Mavrovouniotis has received an Outstanding Reviewer award from the Genetic and Evolutionary Computation Conference (GECCO 2023), the leading peer-reviewed Conference in Computational Intelligence.

OUTSTANDING REVIEWER

Ant Colony Optimization and Swarm Intelligence Track

Michalis Mavrovouniotis

Upcoming Events in Issue #9

GIS Day 2023

On the occasion of the International GIS Day, the Department of Civil Engineering and Geomatics of the Cyprus University of Technology in collaboration with the ERATOSTHENES Center of Excellence, the EXCELSIOR H2020 project and the Cyprus Association of Rural and Surveying Engineering organize a conference featuring distinguished speakers from Cyprus and abroad. The conference will take place on November 13th, 2023, at the Senate Hall, Rector's Building, Cyprus University of Technology and will be broadcasted online.

Co-organized by: Cyprus University of Technology | Department of Civil Engineering and Geomatics

2023 GIS day

Monday, November 13

Registrations <https://bitly.ws/ZmTQ>

Senate Building
Cyprus University of Technology
<https://bitly.ws/ZmX6>

09:00 - 15:00
Local Time

SCAN ME

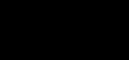
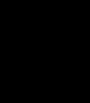
COMMITTEES: Cyprus University of Technology, GIS, TROPIS, DEC, CYRIC, jrcsd, etc.

APPROVED PARTNER: Cyprus University of Technology

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No. 867510*

This project has received funding from the Government of the Republic of Cyprus through the Operational Program "European Programmes, Coordination and Development".

Cyprus University of Technology. This project is co-funded by the Cyprus University of Technology.



CONSORTIUM



AFFILIATED ENTITIES



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