

Current Resume



Personal Information

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Education

(2022) Ph.D in Coastal Hydro-Morphodynamics

Subject " *High frequency beach morphodynamics: A comparison between perched and open beaches* "

https://erabeach.aegean.gr/wp-content/uploads/2023/02/PhD_Chatzipavlis_Antonis.pdf

Overview In this research, the variability of the shoreline and wave run-up positions in two different beach systems have been monitored during highly energetic winter periods: i) an urban perched beach (Ammoudara, Herakleion – Crete); and ii) an open sea beach (Kamari, Santorini). Winter 2-D shoreline and wave run-up/swash maxima in geo-rectified coastal imagery of high spatio-temporal resolution obtained from a Beach Optical Monitoring System (BOMS) installed in these beaches have been analysed using automated feature detection techniques. The detected morphological changes of the two beaches have been then compared with the coastal hydrodynamic regime, which was studied using high-frequency hydrodynamic records, as well as numerical modeling. In addition, an alternative approach has been developed/used to model the shoreline and wave run up position dynamics by utilizing state-of-the-art Artificial Neural Networks (ANNs) on the basis of sophisticated experimental set-ups that involve few (and obtainable) input/output parameters.

Name of Institution Department of Marine Sciences (University of Aegean)
University Hill, 81100, Mytilene, Lesvos, Greece

(2012) Msc in Coastal Zone Management

Title of qualification awarded MSc in Coastal Zone Management
Principal subjects / occupational skills covered

- Main subjects of profession (physical, chemical, geological and biological component of coastal zone)
- Basic knowledge in Coastal Processes and Engineering, Economic Evaluation of the Coastal and Marine Environment, DPSIR-ICZM-SWOT model analysis
- Project of beach nourishment in Eresos bay (Lesvos)
- Project of risk assessment under climate scenarios (IPCC AR4) in Kos island

Name of Institution Department of Marine Sciences (University of Aegean)
University Hill, 81100, Mytilene, Lesvos, Greece

Master Thesis *"Investigating the application of beach nourishment scheme in Eresos beach, Lesvos-Greece. Proposed solutions based on cost evaluation scenarios "*

Msc grade 8.73/10.00

(2010) Bsc in Marine Sciences

Title of qualification awarded Degree in marine sciences

Principal subjects / occupational skills covered - Main subjects of profession (biological, physical, chemical, geological and economic analysis of the oceans components)
- Basic knowledge of sediment's transportation processes, current circulation, coastal works and engineering

Name of Institution Department of Marine Sciences (University of the Aegean)
University Hill, 81100 Mytilene, Lesvos, Greece

Bachelor Thesis *"Structure, application and role of Kos Sewage Treatment Unit in environmental management and protection"*

Bsc grade 7.00/10.00

Participation in Research Projects

01/2024 – today
Project Natural Erosion Prevision Through Use of Numerical Environment (NEPTUNE)
<https://sites.unica.it/coastalandmarinegeologygroup/tender-n-e-p-t-u-n-e>
Supervisor: Prof. Paolo Ciavola, University of Ferrara, Italy.
Funding: Regional (Sardinia) and National (Italian) Funding scheme.

10/2024 – today
Project Elaboration and analysis to improve the knowledge of coastal risk and to support the early warning system for storm events.
Supervisor: Prof. Clara Armaroli, University of Bologna, Italy.
Funding: Consozio Futuro in Ricerca (CFR) and Agenzia Geologia, Suoli e Sismica (AGSS) of the Emilia-Romagna Region (Italy) (Code: CIG B2BB23473)

06/2024 – 09/2024
Project Enhancing resilience for Greek ports
(ResPorts - resports.stt.aegean.gr)
Supervisor: Prof. Adonis Velegrakis, University of the Aegean, Greece.
Funding: Green Fund Programme "Natural Environment & Innovative Actions 2022", Priority Axis 3 – Research and Application

09/2021 – 09/2023
Project Beach erosion due to climate change: Risk evaluation and provision of effective solutions in touristic areas of North Aegean and Cyprus.
(BEACHTECH – beachtech.eu)
Supervisor: Prof. Adonis Velegrakis, University of the Aegean, Greece.
Funding: European Commision, Interreg V-A Greece– Cyprus 2014-2020.

- 05/2021 – 02/2024
 Project Methodological framework for the Assessment and monitoring of the erosion Risk of touristic island beaches under Climate Change.
 (MARICC – maricc.gr)
Supervisor: Prof. Isavela Monioudi, University of the Aegean, Greece.
Funding: Hellenic Foundation for Research & Innovation (HFRI).
- 09/2022 – 12/2022
 Project Investigation of oceanographic parameters around Cyprus (Case Report).
Supervisor: Dr. Louis Hadjioannou
Funding: Cyprus Maritime and Marine Institute (CMMI), on behalf of Cyprus Ministry of Agriculture, Rural Development and Environment
- 06/2021 – 04/2023
 Project Coastal Environment Observatory and Risk Management in Island Regions.
 (AEGIS+ – <https://www.mar.aegean.gr/index.php?lang=en&pg=2.5.3.5>)
Supervisor: Prof. Zervakis Vassilis, University of the Aegean, Greece.
Funding: Operational Programme “Competitiveness, Entrepreneurship and Innovation” (NSRF 2014-2020), co-financed by the Hellenic Government (Ministry of Development and Investments) and the European Union (European Regional Development Fund, Cohesion Fund).
- 12/2019 – 02/2021
 Project Investigation of one-line approach in studying and provision of effective solutions against coastal erosion.
Supervisor: Prof. Thomas Hasiotis, University of the Aegean, Greece.
Funding: Competitiveness, Entrepreneurship and Innovation” (NSRF 2014-2020), co-financed by the Hellenic Government (Ministry of Development and Investments)
- 12/2019 – 02/2021
 Project Investigation of the hydro-morphodynamic and sedimentation processes in Jiangsu tidal flat.
Supervisor: Prof. Gao Shu, East China Normal University (ECNU), Shanghai, China.
Funding: ECNU funds and the Erasmus+ funding scheme of the European Union.
- 02/2016 – 03/2017
 Project Recording of and Technical Responses to Coastal Erosion of Touristic Aegean Island Beaches.
 (ERABEACH – erabeach.aegean.gr)
Supervisor: Prof. Adonis Velegrakis, University of the Aegean, Greece.
Funding: European Economic Area (EEA) Financial Mechanism and the Public Investments Program (PIP) of the Hellenic Republic.

09/2014 - 02/2017

Project THALIS - Physical and Economic Impacts of Sea Level Changes on the Island Beaches of the Aegean Archipelago.

(ISLA - isla.aegean.gr)

Supervisor: Prof. Adonis Velegrakis, University of the Aegean, Greece.

Funding: European Social Fund (ESF) and Greek national funds.

10/2014 - 11/2016

Project Synergy for the sustainable development and safety of the Hellenic touristic beaches-11SYN_8_1466

(BEACHTOUR - beachtour.geol.uoa.gr)

Supervisor: Prof. Adonis Velegrakis, University of the Aegean, Greece.

Funding: European Regional Development Fund (ERDF) and the General Secretariat for Research and Technology (Hellenic Ministry of Education).

02/2012 - 08/2012

Project Regional adaptation strategies for the German Baltic Sea Coast.

(RadOst - <https://climate-adapt.eea.europa.eu/en/metadata/projects/regional-adaptation-strategies-for-the-german-baltic-sea-coast>)

Supervisor: Prof. Peter Froehle, University of the Rostock, Germany.

Funding: German Ministry of Education and Research.

03/2012 - 07/2012

Project Beach Nourishment Investigation of the Beach Tsamakia, Mytilene, Lesvos.

Supervisor: Prof. Adonis Velegrakis, University of the Aegean, Greece.

Funding: Municipality of Lesvos.

Teaching Experience

- Coast and Sediment Dynamics (Adjunct Lecturer and Examiner)
Lesson Details: 3 hours per week, 09/2022 - 01/2023, held at University of the Aegean, Department of Marine Sciences
- Coastal Morphodynamics and Engineering (Adjunct Lecturer and Examiner)
Lesson Details: 5 hours per week, 02/2023 - 06/2023, held at University of the Aegean, Department of Marine Sciences

Grants

- Grant under the Erasmus+ program for supporting part of Ph.D studies, enrolment at the School of Geographic and Oceanographic Sciences, Nanjing University, China
- 3-year grant from the Fanourakis Foundation for supporting Ph.D studies
- Grant from the University of the Aegean, Msc. Integrated Coastal Zone Management program for excellent performance (1st)
- Grant under the Erasmus Placement program to support internship/joining the Insitute fur Kustenwasserbau, University of Rostock, Germany
- 4 year grant for supporting bachelor studies for excellent performance from 1st secondary school of Kos (Ippokrateio Likeio of Kos)

Scientific Expertise

- Modeling of coastal hydro-morphodynamic and sediment dynamic processes (experience with Xbeach, SWAN models)
- Development of scientific software/tools for data handling
- Set-up, deployment and data handling for acoustic (ADV, ADCP), electromagnetic (ECM, S4) and standard (RBR, Hobo, Solinst) hydrodynamic loggers
- Retrieval and analysis of topographic records (RTK-DGPS)
- Installation and data handling of coastal video monitoring systems and meteorological stations.
- Server management (Linux based)

Additional Skills

Languages

- Greek (Native)
- English (Excellent - C2), Certificate of Proficiency, University of Michigan)
- German (Good - B1), Zertifikat Abitur, Goethe Institut)
- Italian (Good - A2), Corso di Italiano L2, Universita degli Studi di Ferrara, Centro Linguistico di Ateneo)
- * Certified scuba diver (Advanced Open Water Diving License from PADI organization),
- * Certified Sailor (Sailing Diploma)
- * Experienced free diver

Military Duties

Joined : Hellenic Army Training Centre (541 TE), Rhodes 12/11/2009
Resigned : Hellenic Army Corps of Engineer (80 TMXEΘ), Kos 12/07/2010

Publications

Scientific Journals

- 1) **Chatzipavlis A.**, Trogu D., Ruju A., Montes J., Usai A., Porta M., Coco G., De Muro S. and Ciavola P. (2026). Development and validation of an Early Warning System for coastal flooding operating on a Mediterranean urban beach. *Natural Hazards and Earth System Sciences*, 26, pp. 1573–1601, doi: <https://doi.org/10.5194/nhess-26-1573-2026>
- 2) **Chatzipavlis A.** and Simeone S. (2026). Advances in Coastal Hydrodynamic and Morphodynamic Processes Under a Changing Climate (Editorial Letter). *Journal of Marine Science and Engineering*, 14(7), 641, doi: <https://doi.org/10.3390/jmse14070641>
- 3) Monioudi I. N., Velegrakis A. F., Polydoropoulou A., Chatzistratis D., Moschopoulos K., Bouhouras E., Papaioannou G., Chalazas T., Vaggelas G. K., **Chatzipavlis A.E.**, Nikolaou A. and Thanopoulou H. (2025). Ranking Port Criticality Under Climate Change: An Assessment of Greece. *Sustainability*, 17(24), 11113, doi: <https://doi.org/10.3390/su172411113>

- 4) Polydoropoulou A., Velegrakis A., Papaioannou G., Karakikes I., Bouhouras E., Thanopoulou H., Chatzistratis D., Monioudi I., Moschopoulos K., **Chatzipavlis A.** (2025). A Composite Port Resilience Index Focused on Climate-Related Hazards: Results from Greek Ports' Living-Labs, *Maritime Transport Research*, 9, 100136. doi: <https://doi.org/10.1016/j.martra.2025.100136>
- 5) Chatzistratis D., **Chatzipavlis A.E.**, Monioudi I.N., Velegrakis A.F., Andreadis O.P., Psarros F., Petsimeris, I.T. (2025). Surf and Swash Zone Dynamics from High-Frequency Observations at a Microtidal Low-Energy Dissipative Beach. *Journal of Marine Science and Engineering (JMSE)*, 13(5), 861. doi: <https://doi.org/10.3390/jmse13050861>
- 6) Christofi D., Mettas C., Evagorou E., Stylianos N., Eliades M., Theocharidis C., **Chatzipavlis A.**, Hasiotis T., Hadjimitsis D. (2025). A Review of Open Remote Sensing Data with GIS, AI, and UAV Support for Shoreline Detection and Coastal Erosion Monitoring. *Applied Sciences*, 15(9), 4771. doi: <https://doi.org/10.3390/app15094771>
- 7) Evagorou E., Hasiotis T., Petsimeris I.T., Monioudi I.N., Andreadis O.P., **Chatzipavlis A.**, Christofi D., Kountouri J., Stylianos N., Mettas C., et al. (2025). A Holistic High-Resolution Remote Sensing Approach for Mapping Coastal Geomorphology and Marine Habitats. *Remote Sensing*, 17(8), 1437. doi: <https://doi.org/10.3390/rs17081437>
- 8) Monioudi I.N., Velegrakis A.F., Chatzistratis D., Chalazas Th., Nikolaou A., **Chatzipavlis A.E.**, Andreadis O.P., Efstratios N. Monioudis (2025). A Prioritization Framework for Adaptation Responses for Climate Change Induced Erosion in Island Beaches – The Case of Lesvos and Kos, Greece, *Journal of Marine Science and Engineering (JMSE)*, 13, 491. doi: <https://doi.org/10.3390/jmse13030491>
- 9) Wu J., Chen X., Dong J., Tan N., Liu X., **Chatzipavlis A.**, Yu Ph., Velegrakis A., Wang Y., Huang Y., Cheng H., Wang D. (2025). Dissolved oxygen prediction in the Dianchi River basin with explainable artificial intelligence based on physical prior knowledge, *Environmental Modelling & Software (ENSO)*, 188, 106412, doi: <https://doi.org/10.1016/j.envsoft.2025.106412>
- 10) Gkaifyllia A., Papasarafricanou S., **Chatzipavlis, A.E.**, Dordevic N., Monioudi I.N., Tzoraki O., Hasiotis Th. (2025). Interaction between coastal socioeconomic and environmental activities for integrated management: Case study East Mediterranean (Greece, Cyprus & Montenegro), *Euro-Mediterranean Journal for Environmental Integration*, 19 pp. doi: <https://doi.org/10.1007/s41207-025-00776-4>
- 11) Chen S., Gu W., Shi B., Chen Y., **Chatzipavlis A.**, Ding J., Zhang W., Chen Q., Wang Y. (2024). Sediment dynamic responses of coastal salt marsh to wind waves and swells in a semi-open tidal flat, *Science of The Total Environment (STOTEN)*, 954, 176562, doi: <https://doi.org/10.1016/j.scitotenv.2024.176562>
- 12) Papasarafricanou S., Siarkos I., Gkaifyllia A., Sahtouris S., Varra G., **Chatzipavlis A.E.**, Hasiotis Th., Tzoraki O. (2024). A Holistic Approach for Coastal–Watershed Management on Tourist Islands: A Case Study from Petra–Molyvos Coast, Lesvos Island (Greece), *Geosciences*, 14(12), 326. doi: <https://doi.org/10.3390/geosciences14120326>
- 13) Monioudi I.N., Velegrakis A.F., Chatzistratis D., Voudoukas M.I., Savva C., Wang D., Bove G., Mentaschi L., Paprotnye D., Morales-Nápoles O., **Chatzipavlis A.**, Thomas Hasiotis Th. and Eva Manoutsoglou E. (2023). Climate change - induced hazards on touristic island beaches: Cyprus, Eastern Mediterranean, *Frontiers in Marine Science*, 10, 16 pp., paper id: :1188896, doi: <https://doi.org/10.3389/fmars.2023.1188896>
- 14) Joumar N., Nabih S., **Chatzipavlis A.**, Velegrakis A.F., Hasiotis Th., Eddine J. El Messari S., Benaabidate L. and Tzoraki O. (2023). A Qualitative Assessment of River Plumes Coupling SWAT Model Simulations and a Beach Optical Monitoring System, *Hydrology*, 10 (2), 38, doi: <https://doi.org/10.3390/hydrology10020038>
- 15) Quintano N. and **Chatzipavlis A.** (2023). Evidence of Mediterranean Monk Seal Predation on Loggerhead Sea Turtle in Lesvos Island, Greece. Case Report. *Examines in Marine Biology and Oceanography*, 5 (3), 3 pp. <https://doi.org/10.31031/EIMBO.2023.05.000612>
- 16) Andreadis O., **Chatzipavlis A.**, Hasiotis Th., Monioudi I., Manoutsoglou E. and Velegrakis A. (2021). Assessment of and Adaptation to Beach Erosion in Islands: An Integrated Approach. *Journal of Marine Science & Engineering* 9, 859, doi: <https://doi.org/10.3390/jmse9080859>

- 17) Wang D.D., Gao S., Zhao Y., **Chatzipavlis A.**, Chen Y., Gao J. and Zhao Y. (2021). An eco-parametric method to derive sedimentation rates for coastal saltmarshes. *Science of the Total Environment*, 707, 12 pp., doi : <https://doi.org/10.1016/j.scitotenv.2020.144756>)
- 18) **Chatzipavlis A.**, Tsekouras G.E., Trygonis V., Velegrakis A.F., Tsimikas J., Rigos A., Hasiotis Th. and Salmas C. (2019). Modeling beach realignment using a neuro-fuzzy network optimized by a novel backtracking search algorithm. *Neural Computing and Applications (NCAA)*, 17 pp., doi: <https://doi.org/10.1007/s00521-018-3809-2>
- 19) Tsekouras G.E., Trygonis V., Maniatopoulos A., Rigos A., **Chatzipavlis A.**, Tsimikas J., Mitianoudis N. and Velegrakis A.F. (2017). A Hermite neural network incorporating artificial bee colony optimization to model shoreline realignment at a reef-fronted beach. *Neurocomputing*, 280, pp. 32-45, doi: <https://doi.org/10.1016/j.neucom.2017.07.070>
- 20) Monioudi, I. N., Velegrakis, A. F., **Chatzipavlis, A. E.**, Rigos, A., Karambas, T., Vousdoukas, M. I., Hasiotis, T., Koukourouvli, N., Peduzzi, P., Manoutsoglou, E., Poulos, S. E., and Collins, M. B. (2017). Assessment of island beach erosion due to sea level rise: the case of the Aegean archipelago (Eastern Mediterranean), *Natural Hazards and Earth System Sciences (NHES)*, 17, pp. 449-466, doi: <https://doi.org/10.5194/nhess-17-449-2017>
- 21) Velegrakis A.F., Trygonis V., **Chatzipavlis A.**, Karambas Th., Vousdoukas M., Ghionis G., Monioudi I., Hasiotis Th., Andreadis O. and Psarros F. (2016). Shoreline variability of an urban beach fronted by a beachrock reef from video imagery. *Natural Hazards*, 83, pp. 201-222. doi: <https://doi.org/10.1007/s11069-016-2415-9>
- 22) Rigos A., Tsekouras G.E., Vousdoukas M.I., **Chatzipavlis A.** and Velegrakis A.F. (2015). A Chebyshev Polynomial RBF Neural Network for the Coastal Shoreline Extraction Problem, *Integrated Computer-Aided Engineering*, 23 (2), pp. 141-160, doi: <https://doi.org/10.3233/ICA-150507>
- 23) Monioudi I.N., Karditsa A., **Chatzipavlis A.**, Alexandrakis G., Andreadis O., Velegrakis A.F., Poulos S., Ghionis G., Petrakis S., Sifnioti D., Hasiotis Th., Lipakis M., Kampanis N., Karambas Th. and Marinos E. (2014). Assessment of Vulnerability of the Eastern Cretan Beaches (Greece) to Sea Level Rise, *Regional Environmental Change*, 16 (7), pp. 1951–1962., doi: <https://doi.org/10.1007/s10113-014-0730-9>

International Conferences

- 1) **Chatzipavlis A.**, Chatzistratis D., Trygonis V., Monioudi I., Andreadis O., Psarros F. and Velegrakis A.F (2024). Longshore variability of swash motion in a dissipative touristic beach from high-frequency video imagery. *5th Int. Congress on Applied Ichthyology, Oceanography & Aquatic Environment (HydroMediT 2024)*, 30 May - 02 June 2024, Mytilene, Greece, 5 pp.
- 2) **Chatzipavlis A.**, Andreadis O., Psarros F., Hasiotis T., Velegrakis A., Evagorou E., Loizidi M. and Chrysostomou G. (2023). Morphological changes recorded from an automated beach optical monitoring system in a highly touristic pocket beach, Coral Bay, Pegeia, Cyprus. *18th Int. Conference on Environmental Science and Technology (CEST 2023)*, 30 August - 02 September 2023, Athens, Greece, 4 pp. doi: <https://doi.org/10.30955/gnc2023.00298>
- 3) **Chatzipavlis A.**, Monioudi I.N., Velegrakis A.F., Chalazas T. and Chatzistratis D. (2023). Application of a Bioclimatic Index for Evaluating the Attractiveness of Two Highly Touristic Beaches in Santorini and Kos. *18th Int. Conference on Environmental Science and Technology (CEST 2023)*, 30 August - 02 September 2023, Athens, Greece, 3 pp. doi: <https://doi.org/10.30955/gnc2023.00453>
- 4) Monioudi I., **Chatzipavlis A.**, Nikolaou A., Velegrakis A. and Hasiotis T. (2023). Exploring beach visitors' willingness to pay for protecting island beaches from erosion: The case of Marmari beach in Kos, Greece. *18th Int. Conference on Environmental Science and Technology (CEST 2023)*, 30 August - 02 September 2023, Athens, Greece, 4 pp. doi: <https://doi.org/10.30955/gnc2023.00478>
- 5) Hasiotis T., Andreadis O., **Chatzipavlis A.**, Mettas C., Evagorou E., Hadjimitsis D., Kountouri I., Louzidou M., and Chrysostomou G. (2023). A holistic high-resolution monitoring approach in studying coastal erosion of a highly touristic beach, Coral Bay, Cyprus. *9th Int. Conference on Remote Sensing and Geoinformation of Environment (RSCy2023)*, 3-5 April 2023, Ayia Napa,

- 6) **Chatzipavlis A.E.**, Trygonis V. and Velegrakis A.F. (2022). High frequency shoreline and wave run-up detections through optical video imagery. Example from Kamari beach, Santorini. *Marine and Inland Waters Research Symposium*, 16-20 September 2022, Porto Heli, Argolida, Greece, pp. 623-627.
- 7) Monioudi I.N., Markozanes F., Velegrakis A.F., **Chatzipavlis A.E.**, Čulibrk A. and Kontopyrakis K.E. 2021. Prioritization of Beach Vulnerability to Sea Level Rise: The case of Santorini, Greece. *Proceedings of the 4th International Congress on Applied Ichthyology, Oceanography & Aquatic Environment (HYDROMEDIT)*, 4-6 November 2021, Mytilene, Lesvos, Greece, pp. 264-268.
- 8) **Chatzipavlis A.E.**, Zamboukas V., Trygonis V. and Velegrakis A.F. (2021). Automated 2-D shoreline and wave run-up detections from high frequency optical data. Example from an urban perched beach: Ammoudara, Herakleion, Crete. *Proceedings of the 4th International Congress on Applied Ichthyology, Oceanography & Aquatic Environment (HYDROMEDIT)*, 4-6 November 2021, Mytilene, Lesvos, Greece, pp. 269-272.
- 9) Andreadis O., Hasiotis T., Manoutsoglou E., **Chatzipavlis A.**, Monioudi I. and Velegrakis A., 2021. Prospective Marine Aggregate Deposits in Chios Island (Greece): A preliminary Evaluation. *Proceedings of the 8th International Conference on Environmental Management, Engineering, Planning & Economics*, 20-24 July 2021, Thessaloniki, Greece, pp. 659-667, ISBN: 978-618-5494-53-7.
- 10) **Chatzipavlis A.**, Trygonis V., Velegrakis A.F., Andreadis O. and Psarros F. (2019). Automated 2-D wave run-up detection from coastal video imagery: Examples from the islands of Santorini and Mykonos. *1st International Conference of Design and Management of Port, Coastal and Offshore Works (DMPCO)*, Athens, Greece, 08-01 May 2019, 4 pp.
- 11) Velegrakis A., Hasiotis T., Tzoraki O., Karambas Th., Monioudi I., Trygonis V., Topouzelis K., **Chatzipavlis A.E.**, Aaheim A. and Orlov A. (2017). Recording of and technical responses to coastal erosion of touristic Aegean island beaches – The ERABEACH project. *Proceedings of the 15th International Conference on Environmental Science and Technology (CEST)*, Rhodes, Greece, 31 August - 02 September 2017, 5 pp.
- 12) Hasiotis T., Velegrakis A.F., Trygonis V., Topouzelis K., Andreadis O., **Chatzipavlis A.**, Psarros F., Manoutsoglou E., Monioudi I. and Koronios E. (2017). Monitoring erosion risk in Kamari beach (Santorini), *Proceedings of the 15th International Conference on Environmental Science and Technology (CEST)*, Rhodes, Greece, 31 August - 02 September 2017, 5 pp.
- 13) Andreadis O., Hasiotis T., Psarros F., **Chatzipavlis A.** and Velegrakis A.F., Erosion and sediment transport processes along Eresos coastal zone (Lesvos, Greece). *Proceedings of the 15th International Conference on Environmental Science and Technology (CEST)*, Rhodes, Greece, 31 August - 02 September 2017, 5 pp.
- 14) Tsekouras G.E., Trygonis V., Rigos A., **Chatzipavlis A.**, Tsolakis D. and Velegrakis A.F. (2017). Neuro-Fuzzy Network for Modeling the Shoreline Realignment of the Kamari Beach, Santorini, Greece. *Proceedings of the 18th International Conference of Engineering Applications of Neural Networks (EANN 2017)*, Athens, Greece, 25–27 August 2017, 744, pp. 229–241. In: Boracchi G., Iliadis L., Jayne C., Likas A. (eds) *Engineering Applications of Neural Networks (EANN 2017)*, Communications in Computer and Information Science, vol 744. Springer, Cham, doi: https://doi.org/10.1007/978-3-319-65172-9_20
- 15) Rigos A., Tsekouras G.E., **Chatzipavlis A.** and Velegrakis A.F. (2016). Modeling Beach Rotation Using a Novel Legendre Polynomial Feedforward Neural Network Trained by Nonlinear Constrained Optimization. *IFIP International Conference on Artificial Intelligence Applications and Innovations (AIAI 2016)*, 475, pp. 167-179. In: Iliadis L., Maglogiannis I. (eds) *Artificial Intelligence Applications and Innovations (AIAI 2016)*, IFIP Advances in Information and Communication Technology, vol 475. Springer, Cham, doi: https://doi.org/10.1007/978-3-319-44944-9_15
- 16) Monioudi, I.N., **Chatzipavlis, A.**, Psarros, F., Rigos, A., Andreadis, O., Hasiotis, T. And Velegrakis, A.F. (2016). Evaluation of beach erosion risk of the Aegean Archipelago islands, *ISISA Islands of the World 14th Conference 2016, Niss(i)ology and Utopia: back to the roots of Island Studies*, Mytilene, Lesvos Island, Greece, 23-27 May 2016, 1 pp.

- 17) Velegrakis A.F., Trygonis V., **Chatzipavlis A.E.**, Vousdoukas M., Ghionis G., Andreadis O., Psarros F., Karambas Th., Sifnioti D., Eleftheriou A., Petrakis S. and Hasiotis Th. (2015). High resolution morphodynamic monitoring of an island beach of the Aegean Archipelago, using a 2-D automated coastal video imagery system, *Proceedings of the 12th International Conference On the Mediterranean Coastal Environment (MedCoast)*, Varna, Bulgaria, 06-10 October 2015, 2, pp. 725-736.
- 18) Velegrakis A.F., Trygonis V., Vousdoukas M.I., Ghionis G., **Chatzipavlis A.**, Andreadis O., Psarros F. and Hasiotis Th. (2015). Automated 2-D Shoreline Detection from Coastal Video Imagery: An example from the island of Crete. *Proceedings of the International Society for Optics and Photonics (SPIE) - 3rd International Conference on Remote Sensing and Geoinformation of Environment (RSCy2015)*, Cyprus, 16-19 March 2015, Vol. 9535, 7 pp., paper id: 95351J, doi: <https://doi.org/10.1117/12.2192687>
- 19) Tsekouras G.E., Rigos A., **Chatzipavlis A.** and Velegrakis A.F. (2015). A Neural-Fuzzy Network Based on Hermite Polynomials to Predict Coastal Erosion, *16th International Conference on Engineering Applications of Neural Networks (EANN 2015)*, Rhodes, Greece, 25-28 September 2015, 10, pp. 195-205. In: Iliadis L., Jayne C. (eds) *Engineering Applications of Neural Networks (EANN 2015)*, Communications in Computer and Information Science, vol 517. Springer, Cham, doi: https://doi.org/10.1007/978-3-319-23983-5_19
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- 21) Velegrakis A. F., Trygonis V., Monioudi I., Vousdoukas M. I., Ghionis G., Karambas T., Andreadis O., Psarros F., Hasiotis T., Poulos S., **Chatzipavlis A.** and Karditsa A. (2015) Climate Variability and Change (CV & MC) impacts on beaches: A new methodological approach focusing on a loggerhead sea turtle nesting beach (Gerakas, National Marine Park of Zakynthos), *Proceedings of International Symposium 'Marine Protected Areas in Greece and the Mediterranean: Designing for the Future by Applying Lessons Learnt from the Past'*, 4-6 December 2015, Zakynthos, Greece, pp. 53-54.
- 24) Velegrakis A.F., Monioudi I.N., **Chatzipavlis A.**, Hatzopoulos J.N., Hasiotis Th., Psarros F., Rigos A., Vousdoukas M.I., Lekkas D., Ghionis G., Peduzzi P. and Chatenoux, B. (2014). Development of a new methodology for the estimation of beach vulnerability to sea level rise - an application to the Aegean Sea. *19th International Sedimentological Congress*, Geneva, Switzerland, 18-22 August 2014, Book of abstracts, pp. 209.
- 25) Velegrakis A., Monioudi I., Poulos S., Lekkas D., Hatzopoulos J., Hasiotis Th., Karambas Th., Kontogianni A., Vousdoukas M.I., Andreadis O., Rigos A., Tsekouras G., Psarros F., Ghionis G., Karditsa A., **Chatzipavlis A.**, Anastasiadis S., Kokkoris G., Petrakis S., Tsimplis M., Peduzzi P. and Collins M. (2013). Physical and economic impacts of sea level changes on the island beaches of the Aegean Archipelago (ISLA): concepts and preliminary results, *Proceedings of the 13th International Conference on Environmental Science and Technology (CEST2013)*, 5-7 September 2013, Athens, paper ID: cest13_0819.
- 26) **Chatzipavlis A.**, Monioudi, I., Velegrakis, A.F. and Andreadis, O. (2012). Case scenario investigation of beach nourishment in Eresos beach, Lesvos, Greece, *Proceedings of the 22nd International Offshore and Polar Engineering Conference (ISOPE)*, Rhodes, Greece, 17 -22 June 2012, pp. 1425-1432. ISBN: 978-1-880653-94-4.

Panhellenic (Greek) Conferences

- 1) **Chatzipavlis A.**, Trygonis V., Velegrakis A.F., Tsekouras G., Hasiotis T., Andreadis O. and Psarros F., 2018. Modeling Beach Realignment with Neural Networks and High Frequency Observations of Shoreline Position and Nearshore Wave Data. *12th Panhellenic Symposium of Oceanography & Fisheries*, Corfu, Greece, 30 May - 03 June 2018, pp. 161.

- 2) Ghionis G., Sifnioti D., **Chatzipavlis A.**, Petrakis S., Andreadis O., Psarros F., Poulos S., Hasiotis Th. And Velegrakis A., 2015. Wave Transformations and Water Circulation in a Reef-Protected Nearshore Zone. The Case of Ammoudara Beach (Heraklion, Crete), 11th Panhellenic Symposium on Oceanography and Fisheries, Mytilene, Lesvos, Greece, 13-17 May 2015, 4 pp.
- 3) **Chatzipavlis A.**, Psaros F., Manoutsoglou E., Trygonis V., Andreadis O., Eleftheriou A., Velegrakis A.F. and Hasiotis Th. (2015). Hydrodynamics and morphodynamics of island poclet beaches: Preliminary results from Kalo Livadi, Mykonos. Proceedings of the 11th Panhellenic Symposium of Oceanography & Fisheries "Aquatic horizons: Challenges & perspectives", 13-17 May 2015, Mytilene, Lesvos, Greece, pp. 1101-1104 (in Greek with English abstract).
- 4) Papadakis M., **Chatzipavlis A.**, Kaplantzi A., Monioudi I., Velegrakis A.F., Nikolaou A., Kontogianni A. (2015) Application of a bioclimatic index for evaluating the attractiveness of 3S (Sea-Sun-Sand) destinations in two beaches of high touristic flow in Rhodes and Mykonos, Proceedings of the 11th Panhellenic Symposium of Oceanography & Fisheries "Aquatic horizons: Challenges & perspectives", 13-17 May 2015, Mytilene, Lesvos, Greece, pp. 1105-1108 (in Greek with English abstract).
- 5) Velegrakis A.F., Monioudi I.N., **Chatzipavlis A.**, Hatzopoulos I.N., Rigos A. and Psarros F. (2015). Development of a methodology for the estimation of beach retreat of the Aegean island beaches due to sea level rise, 11th Panhellenic Symposium of Oceanography & Fisheries "Aquatic horizons: Challenges & perspectives", 13-17 May 2015, Mytilene, Lesvos, Greece, Proceedings, pp. 1089-1092 (in Greek with English abstract)
- 6) **Chatzipavlis A.**, Karambas Th., Andreadis O., Velegrakis A.F. and Rigos A. (2014). Simulating the hydro-morphodynamic processes of Eresos beach, Lesvos island. *Panhellenic Conference «the use of new technologies towards the prevention and management of natural disasters – The role of civil protection» (SafeRhodes 2014)*, 24-26 October 2014, Rhodes, Greece, 12 pp. (in Greek)

Books

- 1) **Chatzipavlis A. (2023)**. High Resolution Beach Morphodynamics: A comparison between perched and open beaches. Metaxa 28, 10681, Athens - Greece, Sideris Publications, 157 pp. ISBN: 978-960-468-352-9. <https://www.siderisbooks.gr/product/high-resolution-beach-morphodynamics/>

Invited Talks

2025/08/29, University of Lincoln, England.

Presentation (1 hour): "Early warning systems for coastal flooding: From the state of the art in Europe to high resolution applications: modelling challenges at multiple scales".

2025/05/22, University of Cantabria, Spain. 2nd Workshop on Compound Flooding in the framework of CCF-SpaNet (RED2022-134880-T).

Presentation (1 hour): "Early warning systems for coastal flooding: From the state of the arts in Europe to a high resolution application in the Gulf of Cagliari".

Editorial Activity

2026-today: Member of the Early Career Editorial Board for *Journal of Marine Sciences and Engineering*.

2025-today: Guest editor of Special Issue “*Sustainable and Integrated Coastal Zone Management Under a Changing Climate: Innovations and Insights*” in *Sustainability*.

https://www.mdpi.com/journal/sustainability/special_issues/4I5P433W29

2024-2026: Guest editor of Special Issue “*Application of Spatial Information Science and Cartography in the Big Remotely Sensed Data Era*” in *Remote Sensing*.

https://www.mdpi.com/journal/remotesensing/special_issues/3G95I7HF00

2023-2026: Guest editor of Special Issue “*Advances in Coastal Hydrodynamic and Morphodynamic Processes under a Changing Climate*” in *Journal of Marine Science and Engineering*.

https://www.mdpi.com/journal/jmse/special_issues/35I8P1ZU7N

Reviewer Activity

2026 (13 peer-review rounds for 6 manuscripts)

- *Computer Modeling in Engineering & Sciences*, 1 review round for 1 manuscript
- *Natural Hazards and Earth System Sciences*, 2 review rounds for 1 manuscript
- *Frontiers in Marine Science*, 5 review rounds for 1 manuscript
- *Water*, 3 review rounds for 1 manuscript
- *Journal of Geophysical Research*, 1 review round for 1 manuscript
- *Journal of Coastal Research*, 1 peer-review round for 1 manuscript

2025 (6 peer-review rounds for 5 manuscripts)

- *Environments*, 2 review rounds for 1 manuscript
- *Regional Environmental Change*, 1 review round for 1 manuscript
- *Remote Sensing*, 1 review round for 1 manuscript
- *Anthropocene Coasts*, 1 review round for 1 manuscript
- *Land*, 1 review round for 1 manuscript

2024 (4 peer-review rounds for 2 manuscripts)

- *Journal of Supercomputing*, 1 review round for 1 manuscript
- *Earth Science Informatics*, 3 review rounds for 1 manuscript

2023 (3 peer-review rounds for 3 manuscripts)

- *Water*, 1 review round for 1 manuscript
- *Examines in Marine Biology & Oceanography*, 2 review rounds for 2 manuscripts

2022 (2 peer-review rounds for 1 manuscript)

- *International Journal of Geo-Information*, 2 review rounds for 1 manuscript