

CURRICULUM VITAE

KASITEROPOULOU Dorothea
Associate Professor at the Department of Environmental Sciences,
School of Technology, University of Thessaly
Civil Engineer, M.Sc, Ph.D

PERSONAL DATA

NAME-SURNAME: KASITEROPOULOU Dorothea
ADDRESS: Platykampos Larisas, P.O. Box 1209, Greece
PHONE NUMBER: +302410684426
+306947047845
E – MAIL: dkasiter@uth.gr

EDUCATION

- **Ph. D.** Department of Civil Engineering, University of Thessaly, 2006-2009 (10/10)
Subject: **Micro-, Meso- and macroflows in periodically grooved channels studied by computer simulation.**
- **M. Sc.** Department of Civil Engineering, University of Thessaly, 2004-2007 (8.13/10)
Subject: **Macroflows in periodically grooved channels studied by computer simulation**
- **Dipl. Ing.** Department of Civil Engineering, University of Thessaly, 1999-2004 (8.24/10)
Subject: **Sustainable Water Resources Management in the City of Volos Case – A decision analysis with the application of the IWR-MAIN FORECAST MANAGER model**

RESEARCH EXPERIENCE

- EP1.** Participation at the research project entitled «RECORDING OF TRADITIONAL LABORATORIES AND BIOTECHNICAL BUILDINGS OF PELIUM », chair of the action Dr. Adamakis Konstantinos, owner of « Adamakis & Cooperators» company. Duration of project: from 1-7-02 to 31-8-02 1-4-02.
- EP2.** Participation at the research project entitled «PETHAGORAS – CENTRAL ACTIONS» with 51900.09 code and chair of the action Dr. Bontozoglou Vasileios, professor at Department of Mechanical and Industrial Engineering, University of Thessaly. Duration of project: from 1-1-05 to 31-8-06.
- EP3.** Participation at the research project entitled «NUMERICAL SIMULATION AND EXPERIMENTAL STUDYING OF FLOW IN MICRO AND NANO CONDUITS » with 03EΔ588 code and chair of the action Dr Liakopoulos Antonios professor at Department of Civil Engineering, University of Thessaly. Duration of project: from 01-01-06 to 01-01-09. Main focus of project: Micro-, Meso- and macroflows in periodically grooved channels, study of simulation in mesoscopic and macroscopic flows
- EP4.** Participation at the research project entitled «ALGAL BIOFUEL PRODUCTION» with 11_SYN_7_472 code and chair of the action Dr. Papapolymerou Georgios, professor at Department of Civil Engineering, Technological Educational Institute of Thessaly. Duration of project: from 01-01-13 to 30-06-15. Main focus of project: Studying of flow in open tubes, fluids mechanics
- EP5.** Participation at the research project entitled «NOVAL CERAMIC MATERIALS» with 11_SYN_5_757 code and chair of the action Dr. Spiliotis Xenofon, professor at Department of Civil Engineering, Technological Educational Institute of Thessaly. Duration of project: from 01-01-13 to 30-06-15. Main focus of project: Flow simulation and calculation of physical properties in noval ceramic materials.
- EP6.** Participation at the private research project entitled «STUDYING OF DEVELOPMENT APPROPRIATE SUPPLY-MANAGEMENT TECHNOLOGIES: SOLID AND LIQUID OLIVE OIL INDUSTRIES BYPRODUCTS, SLUDGE, ALTERNATIVE SOLID FUEL & CHARCOAL OIL» in collaboration with TERRA S.A. company and chair of the action Dr. Spiliotis Xenofon, professor at Department of Civil Engineering, Technological Educational Institute of Thessaly. Duration of project: from 23-8-13 to 31-08-14. Main focus of project: Integration of oil olive wastewater in loam soils.
- EP7.** Participation at the research project entitled «ZOOTECHNICS: LIVESTOCK FACILITIES» in collaboration with Department of Agricultural Technology,

Technological Educational Institute of Thessaly. Duration of project: from 26-2-16 to 01-07-16. Main focus of project: Studying of optimization in livestock buildings design.

EP8. Participation at the research project entitled «BUILDING INTRAPARTUM RESEARCH THROUGH HEALTH – AN INTERDISCIPLINARY WHOLE SYSTEM APPROACH TO UNDERSTAND AND CONTEXTUALIZE PHYSIOLOGICAL LABOUR AND BIRTH (BIRTH)» with COST Action IS1405 code and chair of the action Dr. Soo DOWNE (UK) professor at University of Central Lancashire. Duration of project: from 14-09-17 to present. Main focus of project: ACTIVE MEMBER (BY INVITATION) IN WG2: BIOMECHANICS AND BIOENGINEERING, simulation in closed channels.

EP9. Participation at the research project entitled « Viticulture and oenology. From the grape to the wine "» with code 5260 and institutional responsible for the project Dr. Tsiroukis Achilleas. Duration of project: from 01-01-18 until the end of project, as it will be defined by Entry Decision and Accomplish Decision of project. Main focus of project: Management support.

EP10. Participation at the research project entitled « Farmers statement pension, Greek Payment Authority of Common Agricultural Policy (C.A.P.) Aid Schemes (OPEKEPE), and chair of the action Dr. Papachatzis Alexandros. Duration of project: from 28-03-18 to 30-06-20. Main focus of project: Management support.

EP11. Chair in the action entitled «Computational modeling and simulation of umbilical cord's fluid dynamic, heat transfer and structural properties». Start of work: July 2018, Simulation in macroscale channels.

EP12. Participation at the research project entitled «Utilization of liquid waste for cultivation of macroalgae and utilization thereof for production of biodiesel and fish feed supplements», chair of the action Dr. Papapolymerou Georgios, Simulation in macroscale channels.

EP13. Participation at the research project In2C of Technical Chamber entitled «Integration of third-country nationals in the construction sector», European program, Asylum, Migration and Integration Fund (AMIF), budget 792.966,30 EUR, Start of the program: December 2018, Technical support and teaching of third-country nationals to integrate them into the construction industry.

EP14. Chair in the research project entitled « Computational modelling approach to study maternal-fetal heat exchange under different physiological and clinical conditions». Duration of project: from 12/7/21 till 13/8/21, Computational modeling and simulation in macroscale tubes.

EP15. Chair in the research project entitled «5600.02.12.01 Strengthening of operational and

educational needs - Department of Civil Engineering T.E. TEI of Thessaly (Trikala)». Duration of project: from 16/9/20 till today.

EP16. Participation at the research project entitled «Creation of biofunctional mineral waters with the addition of extracts of fruits, vegetables, Greek aromatic herbs, hemp, Moringa oleifera leaves and leaves of Greek olive varieties produced with innovative technology (deep melting solvents) or with the showcase of humics and of fulvic acids (Biofunctional-Water)», chair of the action Professor Stavros Lalas.

EP17. Participation at the research project entitled «MULTISCALE MODELLING OF ENVIRONMENTAL AND FREE SURFACE FLOWS WITH PARTICLE BASED METHODS_MOVEFREE_Proj. No. 4584», chair of the action Professor Antonios Liakopoulos.

EP18. Participation at the research project entitled «Up-skilling and re-skilling programs in high-demand industries with a focus on digital and green skills'. Sub-project 1: Implementation of Vocational Training Programs through KE.DI.VI.M register. of A.E.I. Program: "Modern solid and liquid waste management systems" Greece 2.0 National Development and Resilience Plan Funding body: European Union – Next Generation EU.

EP19. Participation at the European research project entitled «ERASMUS PLUS SMARTEN», chair of the action Professor Laspidou Chrysi, Vice Rector for Innovation, Internationalization, Collaborations and Digital Governance.

EP20. Participation at the European research project entitled «CA20138 - NETWORK ON WATER-ENERGY-FOOD NEXUS FOR A LOW-CARBON ECONOMY IN EUROPE AND BEYOND (NEXUSNET)», chair of the action Professor Laspidou Chrysi, Vice Rector for Innovation, Internationalization, Collaborations and Digital Governance.

EP21. Participation at the European research project entitled «Climate resilient – regions through solutions and innovations - ARSINOE», Project number: 10107424, Project under the call: H2020-LC-GD-2020, Building a low – carbon, climate resilient future: Research and innovation in support of the European Green Deal, chair of the action Professor Laspidou Chrysi, Vice Rector for Innovation, Internationalization, Collaborations and Digital Governance.

EP22. Participation at the European research project entitled «NATALIE: Accelerating and mainstreaming transformative NATure-bAsed solutions to enhance resiliEence to climate change for diverse bio-geographical European regions», chair of the action Professor Laspidou Chrysi, Vice Rector for Innovation, Internationalization, Collaborations and Digital Governance.

EP23. Participation at the research project entitled «Low cost innovative technology for

water quality monitoring and water resources management for urban and rural water systems in india», Project number: 10107424, Project under the call: H2020-SC5-2018-1, Topic; SC5-12-2018 - EU-India water cooperation, chair of the action Professor Laspidou Chrysi, Vice Rector for Innovation, Internationalization, Collaborations and Digital Governance.

RELEVANT RESEARCH SKILLS

- Nano – and micro simulation problems
- Simulation of nano- and mesomaterials
- Multiscale modelling
- Computational modelling through nanoporous materials
- Computational Fluid Dynamics problems
- Computational methods for high Reynolds number external and internal flows
- Development of incompressible and compressible CFD methods
- Numerical grid generation (finite elements)
- Vectorization of computer codes
- Modelling of complex environmental processes and development of parallel processing algorithms
- High performance computing and GPU programming
- Hybrid atomistic-continuum methods
- Transport phenomena in micro- and nano-fluidic systems

AWARDS

- B1. **Honorary prize** from the University of Thessaly. First in grade (Excellent) for the undergraduate studies (BEng), 2004.
- B2. **Honorary prize** from the Municipal Enterprise of Water Supply and Sewerage of Volos of Volos (DEYAMB) for the undergraduate work on Sustainable Water Resources Management in the City of Volos Case (BEng), 2004.
- B3. **Honorary prize** from the University of Thessaly. First in grade (Excellent) for the postgraduate studies (MEng), 2007.
- B4. **Fellowship for PhD Studies** specializing in nanotechnology from General Secretariat Research and Technology, 2006-2009 (40.140€).

B5. **Award** for the work entitled " Computational modeling and simulation of umbilical cord's fluid dynamic, heat transfer and structural properties" (2018) and for the work entitled " Computational modelling approach to study maternal-fetal heat exchange under different physiological and clinical conditions" (2021) in context with European Union Research Program Cost Action collaborated with the University of UCLAN (<https://www.ca18211.eu/short-term-scientific-mission/>).

TEACHING EXPERIENCE

T1. Adjunct professor, 2009-2014

Technological Educational Institute of Thessaly, Department of Building Structure Engineering

- Building materials technology
- Technical drawing, Autocad, Archicad, Technical, Design constructional projects by PC
- **Hydraulics**
- **Fluid Flow Simulation**
- **Hydrodynamic projects, Dams**

T2. Adjunct professor, 2009-to 2019

Technological Educational Institute of Thessaly, Department of Building Structure Engineering

- **Hydraulics**
- **Facilities Buildings Nets**
- Building I
- Building II
- New Building Rural
- Technical Law

T3. Adjunct professor, 2012-2013

University of Thessaly, School of Engineering, Department of civil engineering

- **Hydraulics**
- **Fluid Mechanics**

T4. Adjunct professor, 2015-2016

Technological Educational Institute of Thessaly, Department of Agricultural Technology

- Livestock facilities

T5. Assistant professor, April 2019 to present

University of Thessaly, School of Technology, Department of Environment

- **Fluid Flow Simulation**
- **Fluid Mechanics**
- **Hydraulics**
- **Hydrology**

T6. Assistant professor, April 2019 to present

Department of Civil Engineering (TE Trikala), University of Thessaly

- **Hydraulics**
- **Energy Building Design**

Dr. KASITEROPOULOY Dorothea was collaborated with I.E.K. Larisas as follows

A) From 01/10/2009 to 12/02/2010 teaching Technical drawing – Geometrical computations

B) From 16/02/2010 to 30/06/2010 teaching Aluminium structural constructions

THESIS SUPERVISION

Bachelor theses

1. Supervisions at Department of Civil Engineering (Volos), University of Thessaly in collaboration with Professor LIAKOPOULOS Antonios (hydraulics simulation projects): A.Stamou, E. Tsikopoulos, N. Michalolias,
2. Supervision at Department of Civil Constructional Projects of Larisa with title «Studying of Krinitza drain system» (simulation closed cross-section channels): Apostolou Hlias
3. Supervision at Department of Civil Engineering (TE Trikala), University of Thessaly, in academic field of simulation to hydraulics projects: E. Manou, K. Sorrou, V. Arvanitis, A-M. Gourounti, S. Lappas, Priftis.

Ph.D. Dissertation Supervision

Supervision at Department of Environment, University of Thessaly: KONSTANTELOS Christos (in progress).

Member of Ph. D. Dissertation Examination Committees

Advisory of PhD Thesis at Department of Environment, University of Thessaly: SAKKAS Athanasios (in progress), PETROTOS Nikolaos (in progress), KAFFE Dimitra (in progress), TZIKAS Konstantinos (in progress).

EDUCATIONAL TASK ASSESSMENT

Educational task of Dr. KASITEROOULOU Dorothea was assessed by students of:

α) Technological Educational Institute of Thessaly. Average grade price is 4,7/5.

B) University of Thessaly. Average grade price is 4/5 whereas the mean value for all professors is 4,3/5.

WORKING EXPERIENCE

She works as a professional civil engineer in the design and construction of private and public building projects (2004 to present)

COMPUTING EXPERIENCE (HIGH PERFORMANCE COMPUTING):

- ANSYS - CFX (Computational Fluid Dynamics): Grid generation (Navier-Stokes equations), parallel processing
- LAMMPS (Large-scale Atomic/Molecular Massively Parallel Simulator),
- IWR - MAIN FORECAST AND CONSERVATION MANAGER,
- MATLAB,
- ARC/INFO, ARCHICAD,
- AUTOCAD 2D – 3D, PUNCH, PHOTOSHOP, HOME DESIGN, GOOGLE SKETCH UP,
- Fortran, Linux, Windows.
- Energy Building, Energy Certificate (Civiltech)
- Financial Design for building License (Civiltech)
- 3DR Steel

MEMBERSHIP OF PROFESSIONAL SOCIETIES

Technical Chamber of Greece, 2004-present

Civil Engineers Association, 2004-present

BOOKS

- **D. Kasiteropoulou**, 2009, Micro-, Meso- and macroflows in periodically grooved channels studied by computer simulation., Doctor of Philosophy, Volos, Greece.
- **D. Kasiteropoulou**, 2007, Macroflows in periodically grooved channels studied by computer simulation, Master of Science, Volos, Greece.

- **D. Kasiteropoulou**, 2004, Sustainable Water Resources Management in the City of Volos Case – A decision analysis with the application of the IWR-MAIN FORECAST MANAGER model, B.Sc., Volos, Greece.

CHAPTER IN BOOKS

- **D. Kasiteropoulou**, T.E. Karakasidis, A. Liakopoulos, 2008, MULTISCALE SIMULATION OF FLUID FLOW IN PERIODICALLY GROOVED CHANNELS, an anniversary volume for the 20 years of the University of Thessaly, paper No35, Editor: Professor Mixalis Zouboulakis, Vice Rector of University of Thessaly.

JOURNALS PUBLICATIONS

- J1. **D.Kasiteropoulou**, T.E. Karakasidis, and A. Liakopoulos, "Dissipative Particle Dynamics Investigation of Parameters Affecting Planar Nanochannel Flows", *Materials Science and Engineering B*, Vol.176(19), 2011, pp.1574- 1579, DOI: 10.1016/j.mseb.2011.01.023.
- J2.**D.Kasiteropoulou**, T.E. Karakasidis, and A. Liakopoulos, "A Dissipative Particle Dynamics study of flow in periodically grooved nanochannels", *International Journal for Numerical Methods in Fluids*, Vol.68, Issue 9, pp.1156-1172, 2011, DOI: 10.1002/flid.2599.
- J3.**D. Kasiteropoulou**, T. E. Karakasidis, and A. Liakopoulos, "Mesoscopic simulation of fluid flow in periodically grooved microchannels", *Computers & Fluids*, Vol.74, pp.91-101, 2013, DOI: 10.1016/j.compfluid.2013.01.010.
- J4. E. Farsirotou, **D. Kasiteropoulou** and D. Stamatopoulou, "Experimental investigation of fluid flow in horizontal pipes system of various cross-section geometries", *The European Physical Journal Conferences 02/2014*; Vol. 67, pp. 02026.1-5, 2014. DOI: 10.1051/epjconf/20146702026.
- J5. X. Spiliotis, K. Ntampegiotis, **D. Kasiteropoulou**, S. Lambrakopoulos, K. Lolos, V. Karayannis, G. Papapolymerou, "Valorization of mill scale waste by its incorporation in fired clay bricks", *Key Engineering Materials*, Vol.608, pp. 8-13, 2014, DOI: 10.4028/www.scientific.net/KEM.608.8.
- J6. K. Ntampegiotis, **D. Kasiteropoulou**, S. Lamprakopoulos, V. Karayannis, G. Papapolymerou, X. Spiliotis, "Sustainable management of steel-making EAFG into red ceramics", *Fresenius Environmental Bulletin*, Accepted for publication (2015).
- J7.**D. Kasiteropoulou**, T. E. Karakasidis, and A. Liakopoulos, "Study of fluid flow in grooved micro and nano-channels via dissipative particle dynamic: a tool for desalination

- membrane design”, *Desalination and Water Treatment* (Manuscript ID: TDWT20150654), Vol. 57(25), pp. 11675-11684, 2016, DOI: 10.1080/19443994.2016.1141118.
- J8. S. Lamprakopoulos, Vayos G Karayannis, G.Papapolymerou, **D. Kasiteropoulou**, K. Ntampeglitis and X.Spiliotis, “Development of engineering ceramics 100% from lignite fly ash and steelmaking EAF mixtures”, *Journal of Ceramic Processing Research*, Vol. 17(9), pp. 985-989, 2016.
- J9. V. Karayannis, K. Ntampeglitis, S. Lamprakopoulos, **D. Kasiteropoulou**, G. Papapolymerou, X. Spiliotis, "Development of extruded and sintered clay bricks with beneficial use of industrial 'scrap-soil' as admixture", *Romana de Materiale*; Vol. 46.4, pp.523-529, 2016.
- J10. E. Keramaris, G.Pechlivanidis, **D. Kasiteropoulou**, N.Michalolias, A. Liakopoulos, “Experimental and Numerical Study of Turbulent Flow in Open Channels with Impermeable and Porous Bed”, *Procedia Engineering*, Vol. 162, pp. 381-387, 2016. <https://doi.org/10.1016/j.proeng.2016.11.078>
- J11. **D. Kasiteropoulou**, N. Michalolias, E. Keramaris and A. Liakopoulos, “Numerical modelling and analysis of turbulent flow in an open channel with submerged vegetation”, *Environmental Processes*, Vol. 4(1), pp. 47-61, 2017. DOI: 10.1007/s40710-017-0235-x
- J12. E. Keramaris, A. Liakopoulos, N.Michalolias, **D. Kasiteropoulou**, G.Pechlivanidis, “A study of flow in open channels with vegetation: experiments and numerical models”, *Special Topics & Reviews in Porous Media: An International Journal*, Vol. 8(2), pp.109-120, 2017. DOI: 10.1615/SpecialTopicsRevPorousMedia.2017019692
- J13. N. Michalolias, E. Keramaris, D. Kasiteropoulou, A. Liakopoulos and G. Pechlivanidis, “Experiments and numerical analysis of flow in an open channel with gravel bed”, *Proceedings* 2018, 2, 581; doi:10.3390/proceedings2110581.
- J14. D. Spetsiotis, F. Sofos, T. Karakasidis, **D. Kasiteropoulou**, A. Liakopoulos, “Multi-parameter analysis of water flows in nanochannels”, *Desalination and Water Treatment*, pp. 8-15, 2018. DOI: 10.5004/dwt.2018.22961
- J15. **D. Kasiteropoulou**, “Computational modelling and simulation of umbilical cord’s fluid dynamic, heat transfer and structural properties”, *Cost Action IS1405 report*, pp. 1-18, 2018.

- J16. **D.Kasiteropoulou**, A. Topalidou and S. Downe, “A computational fluid dynamics modelling of maternal-fetal heat exchange and blood flow in the umbilical cord”, *PLoS One*, 15(7): e0231997, pp. 1-18, 2020. <https://doi.org/10.1371/journal.pone.0231997>
- J17. X. Spiliotis, **D. Kasiteropoulou**, D. Kaffe, D. Christodoulou, G. Banias, G. Papapolymerou, “Valorization of Bottom Oil Sludge in Red Ceramics— Inertization of the Contained Heavy Metals in the Ceramic Matrix”, *Materials Proceedings*, 5(1), 6, 2021.
- J18. X. Spiliotis and **D. Kasiteropoulou**, “Recycled aggregates derived from excavation, construction and demolition wastes”, *Ergotaxiaka themata*, September- October 2021, pp.40-42 (in Greek).
- J19. N. Gougoulas, G. Papapolymerou, A. Mpesios, **D. Kasiteropoulou**, M. N. Metsoviti, M.-E. Gregoriou, “Effect of Macronutrients and of Anaerobic Digestate on The Heterotrophic Cultivation of *Chlorella Vulgaris* Grown with Biodiesel By- Products”, *Research Square*, Posted Date: February 8th, 2021, DOI: <https://doi.org/10.21203/rs.3.rs-156974/v1>
- J20. **D. Kasiteropoulou**, “Computational modelling approach to study maternal- fetal heat exchange under different physiological and clinical conditions”, *Cost Action CA18211 report*, pp. 1-3, 2021.
- J21. N. Gougoulas, G. Papapolymerou, A. Mpesios, **D. Kasiteropoulou**, M. N. Metsoviti and M. E. Gregoriou, “Effect of macronutrients and of anaerobic digestate on the heterotrophic cultivation of *Chlorella vulgaris* grown with glycerol”, *Environmental Science and Pollution Research*, 29, pages 29638–29650 (2022), <https://doi.org/10.1007/s11356-021-17698-7>.
- J22. Christodoulou D., Lokkas Ph., Droudakis A., Spiliotis X., **Kasiteropoulou D.** and Alamanis N., (2021), “The Development of Practice in Permeation Grouting by using Fine-grained Cement Suspensions”, *Asian Journal of Engineering and Technology (AJET)*, ISSN: 2321 – 2462, Vol. 9, No. 6 (2021): December 2021, pp. 92-101. DOI: <https://doi.org/10.24203/ajet.v9i6.6846>
- J23. G. Papapolymerou, A. Kokkalis, **D. Kasiteropoulou**, N. Gougoulas, A. Mpesios, A. Papadopoulou, M. N. Metsoviti, X. Spiliotis “Effect of Anaerobic Digestate on the Fatty Acid Profile and Biodiesel Properties of *Chlorella sorokiniana* Grown Heterotrophically”,

Sustainability 2022, 14(1), 561. <https://doi.org/10.3390/su14010561>

- J24. G. Papapolymerou, N. Gougoulis, A. Mpesios, A. Kokkalis, X. Spiliotis, A. Papadopoulou, **D. Kasiteropoulou** and M. N. Metsoviti, "Semi-batch heterotrophic cultivation of *Chlorella sorokiniana* and *Chlorella kessleri*: lipid and protein content, fatty acid distribution and FAME properties", *Desalination and Water Treatment*, 260(2022) 216-224, doi: 10.5004/dwt.2022.28363.
- J25. Christodoulou D., Kasiteropoulou D., Spiliotis X. and Papapolymerou G., (2022), "Properties of Environmentally Friendly Cement Grouts for Soil Improvement - A Mini Review", *Environmental Analysis & Ecology Studies*, ISSN: 2578-0336, Vol. 9, Issue 5, pp. 1054-1058. EAES. 000723. 2022. DOI: 10.31031/EAES.2022.09.000723. Published: April 04, 2022.
- J26. Kasiteropoulou D., Papapolymerou G., Spiliotis X. and Christodoulou D., (2022), "Numerical study of turbulent flow in gabion open channels", *International Journal of Research in Engineering and Science (IJRES)* (accepted for publication).
- J27. G. Papapolymerou, N. Gougoulis, M. N. Metsoviti, A. Kokkalis, **D. Kasiteropoulou**, X. Spiliotis, A. Mpesios, A. Papadopoulou, FAME and bio-oil properties and carbon yield coefficients of *Chlorella sorokiniana* cultivated heterotrophically with industrial effluents", *Sustainable Chem & Pharmacy*, (2022), Volume 30, December 2022, 100879. <https://doi.org/10.1016/j.scp.2022.100879>.
- J28. K. V. Kakavas, V. D. Binas, D. Kasiteropoulou and D. N. Christodoulou, "Valorization of greek – Naxos emery in environmental friendly applications", *IOP Conference Series: Earth and Environmental Science*, 1123 (2022) 012002, doi:10.1088/1755-1315/1123/1/012002.
- J29. G. Papapolymerou, M. N. Metsoviti, N. Gougoulis, N. Katsoulas, I. Karapanagiotidis, **D. Kasiteropoulou**, A. Mpesios, A. Papadopoulou, "FAME properties, bio-oil productivity and carbon yield coefficient of *Chlorella sorokiniana* grown with low and high initial nitrogen concentrations", *Sustainable Chemistry and Pharmacy* 2023, Manuscript Number: SUSCP-D-23-00501, submitted for publication.
- J30. **Kasiteropoulou D.** (2023), "A study of flow in open orthogonal and trapezoidal channels with gabion walls", *WSEAS TRANSACTIONS ON FLUID MECHANICS*, 18:66-73, DOI:10.37394/232013.2023.18.7.
- J31. Pitsilka, E. and **Kasiteropoulou D.** (2024), "Wind turbines farms applications. A mini review", *International Journal of Research in Engineering and Science (IJRES)*, Volume 12 Issue 2, PP. 36-41

PAPERS IN INTERNATIONAL CONFERENCE PROCEEDINGS

- C1. **D. Kasiteropoulou**, A. Liakopoulos, T. Karakasidis, "Friction laws for planar channels with idealized periodic roughness elements", *Bulletin of the APS* 52 (17), 2007.
- C2. **D. Kasiteropoulou**, T. Karakasidis, and A. Liakopoulos, "Flow in periodically grooved nanochannels studied by computer simulation", *XXV Conference on solid state physics and material science*, Thessaloniki, September 2009.
- C3. **D. Kasiteropoulou**, T. Karakasidis, and A. Liakopoulos, "Dissipative Particle Dynamics of flow in periodically grooved three-dimensional nanochannels", *4th International Conference: from Scientific Computing to Computational Engineering*, Athens, July 2010.
- C4. **D. Kasiteropoulou**, T. Karakasidis, and A. Liakopoulos, "Investigation of Parameters Affecting Planar Nanochannel Flows by Dissipative Particle Dynamics", *7th International Conference on Nanosciences and Nanotechnologies - NN10*, Halkidiki -Greece, July 2010.
- C5. **D. Kasiteropoulou**, T. Karakasidis, and A. Liakopoulos, "Microfluidics Simulations In Periodically Grooved Channels using Dissipative Particle Dynamics", *2nd European Conference on Microfluidics*, Toulouse, December 2010.
- C6. **D. Kasiteropoulou**, A. Moysiadis, L. Sdrolas, "Human Error and Labour Accident: The Civil Engineering Project Case", *Proceedings of the International Conference on Economics and Administration-ICEA-FAA*, Bucharest, Romania, 3- 4 June, pp.502-508, 2011.
- C7. **D. Kasiteropoulou**, T. Karakasidis, and A. Liakopoulos, "Dissipative Particle Dynamics Simulation of Flow in Periodically Grooved Three-Dimensional Nano- and Microchannels", *3rd Micro and Nano Flows International Conference*, Thessaloniki -Greece, 22-24 August 2011.
- C8. **D. Kasiteropoulou**, T. Karakasidis, and A. Liakopoulos, "Parameters Affecting Planar Grooved Nanochannel Flows via Dissipative Particle Dynamics Simulations", *9th International Conference on Nanosciences & Nanotechnologies*, Thessaloniki -Greece, 3-6 July 2012.

- C9. **D. Kasiteropoulou**, D. Drikakis, "Advances in Micro Fluid Dynamics Modelling", *10th WSEAS International Conference on Fluid Mechanics*, Milan - Italy, 9-11 January 2013.
- C10. **D. Kasiteropoulou**, T. Karakasidis, and A. Liakopoulos, "Friction factor estimation of microchannel flows: A dissipative particle dynamics study", *10th HSTAM 2013 International Congress on Mechanics*, Chania, Crete -Greece, 25- 27 May 2013.
- C11. G. Papapolymerou, X. Spiliotis, V Karayannis, N. Gougoulas, **D. Kasiteropoulou**, "Microalgal cultivation and biofuel production – Effect of nitrogen restriction", *CEMEPE 2013 – 4th International Conference on Environmental Management, Engineering, Planning and Economics*, Mykonos Island, Greece, 4-8 June 2013.
- C12. K. Ntampeglitis, **D. Kasiteropoulou**, S. Lamprakopoulos, V. Karayannis, G. Papapolymerou, X. Spiliotis, "EAFC beneficial utilization in extruded clay bricks fabrication", *Proceedings of the PRE XII – 12th International Conference on Protection & Restoration of the Environment*, Skiathos, June 29 – July 3, 2014
- C13. K. Lolos, K. Ntampeglitis, **D. Kasiteropoulou**, V. Karayannis, G. Papapolymerou, X. Spiliotis, "Steel making EAFC as the raw material into novel ceramics", *Book of Abstracts of the CHISA 2014 – 21st International Congress of Chemical and Process Engineering*, Prague, Czech Republic, August, 23-27.
- C14. V. Karayannis, **D. Kasiteropoulou**, K. Ntampeglitis, S. Lamprakopoulos, G. Papapolymerou, X. Spiliotis, "Valorization of steel mill scale for manufacturing innovative engineering ceramics and environmental protection", *21st International Congress of Chemical and Process Engineering CHISA 2014 Prague*.
- C15. X. Spiliotis, N. Gougoulas, V. Karayannis, **D. Kasiteropoulou**, G. Papapolymerou, "Effect of pH on the growth rate and productivity of wild algal species", *Book of Abstracts of the ICOEST 2014 – 2nd International Conference on Environmental Science and Technology*, Side-Antalya, May 14-17, 2014.
- C16. X. Spiliotis, K. Ntampeglitis, **D. Kasiteropoulou**, V. Karayannis, G. Papapolymerou, "Contribution to the management of steel industry scrap-soil by its utilization into red ceramics", *Book of Abstracts of the GREENCHEM4 – 4th International Symposium on Green Chemistry for Environment, Health and Development*, Kos Island, Greece, Sept. 24-26, 2014.

- C17. E. Farsirotou, **D. Kasiteropoulou** and D. Stamatopoulou, "Experimental investigation of fluid flow in horizontal pipes system of various cross-section geometries", *The European Physical Journal Conferences* 02/2014; 67. DOI: 10.1051/epjconf/20146702026.
- C18. **D. Kasiteropoulou**, T. Karakasidis, and A. Liakopoulos, "Roughness effect on flows in micro and nano-channels", *12th International Conference "Protection & Restoration of the Environment - PRE12*, Skiathos Island, 29 June- 4 July 2014.
- C19. S. Lamprakopoulos, V. Karayannis, G. Papapolymerou, **D. Kasiteropoulou**, K. Ntampegliotis, X. Spiliotis, "Lignite fly ash and EAFC as the raw materials for ceramics", *Proceedings of the CEMEPE 2015 – 5th International Conference on Environmental Management, Engineering, Planning and Economics*, Mykonos Island, Greece, June 14-18, 2015.
- C20. E. Keramaris, G.Pechlivanidis, **D. Kasiteropoulou**, N.Michalolias, A. Liakopoulos, "Experimental and Numerical Study of Turbulent Flow in Open Channels with Impermeable and Porous Bed", *2nd EWaS International Conference: "Efficient & Sustainable Water Systems Management toward Worth Living Development"*, 1 - 4 JUNE 2016 Crete Island, Greece.
- C21. **D. Kasiteropoulou**, T. Karakasidis, and A. Liakopoulos, "Particle based simulation of fluid flow in periodically grooved channels", *European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS) Congress*, 5 - 10 JUNE 2016 Crete Island, Greece.
- C22. N. Michalolias, E. Keramaris, **D. Kasiteropoulou**, A. Liakopoulos and G. Pechlivanidis, "Experiments and numerical analysis of flow in an open channel with gravel bed", *3rd EWaS International Conference on "Insights on the Water-Energy-Food Nexus"*, Lefkada Island, Greece, 27-30 June 2018.
- C23. **D. Kasiteropoulou**, A. Topalidou, "Computational modelling and simulation of umbilical cord's fluid dynamic, heat transfer and structural properties", *From Birth to Health Towards Sustainable Childbirth*, Sept 17- 18, 2018: COST Action BIRTH Conference: Lisbon.
- C24. A. Liakopoulos A. Papazisis, **D. Kasiteropoulou**, "Wake interference between two wind turbines for wind farm layout optimization" *Protection and Restoration of the Environment XV Greece*, 2020.

- C25. N. Gougoulis, G. Papapolymerou, A. Mpesios, D. Kasiteropoulou, M. N. Metsoviti, M-E. Gregoriou, Effect of macronutrients and of anaerobic digesterate on the Heterotrophic growth of *Chlorella vulgaris*, GREENCHEM6 CONFERENCE 2020, 6th International Symposium on green chemistry, sustainable development and circular economy, Thessaloniki, Greece, September 20-23, 2020.
- C26. G. Papapolymerou, N. Gougoulis, A. Mpesios, A. Kokkalis, X. Spiliotis, A. Papadopoulou, **D. Kasiteropoulou** and M. N. Metsoviti. "Effect of semi-batch mode operation during the heterotrophic cultivation of *Chlorella sorokiniana* & *Chlorella kessleri* on the fatty acid distribution and on FAME properties" Conference: Eighth International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE 2021) and SECOTOX Conference, At: Thessaloniki, Greece, July 20-24, 2021, pp.441-450.
- C27. A. Mpesios, X. Spiliotis, **D. Kasiteropoulou**, M. N. Metsoviti, A. Papadopoulou, N. Gougoulis, A. Kokkalis and G. Papapolymerou, "Heterotrophic growth of *Chlorella sorokiniana*: temperature dependence of kinetics and of fatty acid distribution" Conference: Eighth International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE 2021) and SECOTOX Conference, At: Thessaloniki, Greece, July 20-24, 2021, pp.396-405.
- C28. **D. Kasiteropoulou**, M.N. Metsoviti, A. Papadopoulou, N. Gougoulis, A. Mpesios, L. Ntoufas., X. Spiliotis and G. Papapolymerou, Use of anaerobic digesterate from biogas plant effluents and glycerol as raw materials for the production of biomass and bioenergy. Conference: 7th International Conference on Industrial and Hazardous Waste Management At: 27-30 July, 2021, Chania, Crete, Greece.
- C29. G. Papapolymerou, A. Mpesios, M. Metsoviti, A. Papadopoulou, N. Gougoulis & D. Kasiteropoulou "Carbon Uptake Rate and Biomass and Lipid Productivities of *Chlorella Protothecoides* cultivated Heterotrophically with Crude Glycerol", 8th international conference on energy, sustainability and climate crisis, ESCC 2021, Center of Culture and Arts "Theatrini", Volos, Greece, on August 30 – September 3, 2021.
- C30. Spiliotis X., **Kasiteropoulou D.**, Kaffe D., Christodoulou D., Banias G. and Papapolymerou G., (2021), "Valorization of bottom oil sludge in red ceramics - Inertization of the contained heavy metals in the ceramic matrix", International Conference on Raw Materials and Circular Economy, "Technological Developments and Future Challenges", 5 - 9 September 2021, Athens, Greece.
- C31. A. Kokkalis, **D. Kasiteropoulou**, A. Papadopoulou, M. N. Metsoviti, A. Mpesios, N.

- Gougoulas, X. Spiliotis, G. Papapolymerou, "Biodiesel Properties from Chlorella sorokiniana Bio-Oil Cultivated Heterotrophically with Industrial By- Products", 17th International Conference on Environmental Science and Technology, 1 - 4 September 2021, Athens, Greece.
- C32. G. Papapolymerou, A. Kokkalis, **D. Kasiteropoulou**, N. Gougoulas, A. Mpesios, A. Papadopoulou, M. N. Metsoviti, X. Spiliotis, Fatty Acid distribution of Chlorella Sorokiniana grown with crude glycerol and anaerobic digestrate as an alternative source of bio-oil for biodiesel production, 16th Conference on Sustainable Development of Energy, Water and Environment Systems-SWEDES, 10-15 October 2021, Dubrovnic, Croatia
- C33. M.N. Metsoviti, A. Mpesios, **D. Kasiteropoulou**, S. Lamprakopoulos, N. Gougoulas, G. Papapolymerou, "HETEROTROPHIC BATCH CULTIVATION OF CHLORELLA SOROKINIANA AND CHLORELLA KESSLERI USING GLYCEROL: BIOMASS & LIPID PRODUCTIVITIES AND BIOMASS CARBON YIELD COEFFICIENTS", HydroMedit 2021, 4th International Congress on Applied Ichthyology, Oceanography & Aquatic Environment, 4-6 November 2021.
- C34. G. Papapolymerou, M. Metsoviti, **D. Kasiteropoulou**, N. Katsoulas, I. Karapanagiotidis, A. Mpesios, A. Papadopoulou, "Carbon yield and Sustainability Issues of the Heterotrophic Growth of Chlorella Sorokiniana Cultivated with Glycerol and Anaerobic Digestate", Conference on Sustainable Development of Energy, Water and Environment Systems, Vlore, 22-25 May 2022
- C35. **D. Kasiteropoulou**, M. Metsoviti, A. Papadopoulou, A. Mpesios, X. Spiliotis, G. Papapolymerou, "Heterotrophic Growth of Chlorella Sorokiniana Cultivated with Glycerol: Effect of Anaerobic Digestate and Type of Nitrogen Source", Conference on Sustainable Development of Energy, Water and Environment Systems, Vlore, 22-25 May 2022
- C36. G. Papapolymerou, M. N. Metsoviti, N. Katsoulas, I.T. Karapanagiotidis, **D. Kasiteropoulou**, A. Mpesios, and A. Papadopoulou, "FAME properties and productivity of the bio-oil of Chlorella sorokiniana grown with low and high nitrogen concentrations" Conference: Ninth International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE 2022), At: Mykonos, Greece, June 5-9, 2022, pp.163-172, ISBNQ978-618-5494-97-1.
- C37. **D. Kasiteropoulou**, M. N. Metsoviti, A. Mpesios, A. Papadopoulou and G. Papapolymerou, "Mixotrophic cultivation of Chlorella sorokiniana using glycerol: comparison with heterotrophic and autotrophic cultivation" Conference: Ninth

International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE 2022), At: Mykonos, Greece, June 5-9, 2022, pp.211- 218, ISBNQ978-618-5494-97-1.

- C38. **D. Kasiteropoulou**, G. Papapolymerou, D. Ladas, A. Mpesios and M. N. Metsoviti, “Heterotrophic growth of *Chlorella sorokiniana* with glycerol and anaerobic digestate: carbon uptake rate and phenolic content”, 1st International Conference on Sustainable Chemical and Environmental Engineering, 31st Aug-4th Sep, 2022.
- C39. G. Papapolymerou, A. Mpesios, A. Kokkalis, **D. Kasiteropoulou**, M. N. Metsoviti, A. Papadopoulou, “Effect of carbon concentration on the fatty acid distribution and basic FAME properties of the bio-oil of *Chlorella sorokiniana*”, Proceedings 1st International Conference on Sustainable Chemical & Environmental Engineering, August 31st-September 4th, 2022, Rethymno, Greece
- C40. **D. Kasiteropoulou**, A. Kokkalis, M. N. Metsoviti, X. Spiliotis, A. Mpesios, G. Papapolymerou, “Biodiesel production, properties and sustainability from the biomass of *Chlorella sorokiniana* grown heterotrophically with glycerol and anaerobic digestate”, Proceedings 1st International Conference on Sustainable Chemical & Environmental Engineering, August 31st-September 4th, 2022, Rethymno, Greece
- C41. Kakavas K.V., Binas V.D., **Kasiteropoulou D.** and Christodoulou D.N., (2022). “Valorization of greek – Naxos emery in environmental friendly applications”. Proceedings, 3rd International Conference on Environmental Design, ICED2022, Athens, Greece, October 22-23, 2022.
- C42. K. Tzikas, X. Spiliotis and **D. Kasiteropoulou**, “Literature review for tunnel kilns optimization and energy saving” Conference: Tenth International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE AND SECOTOX CONFERENCE 2023), At: Skiathos, Greece, June 5-9, 2023.

SUSTAINABLE PROCESS INDUSTRY THROUGH RESOURCE AND ENERGY EFFICIENCY (SPIRE) PRESENTATIONS:

- C43. Viokeral – Terra SA, “Valorisation of waste or process by-products by its incorporation into clay ceramics”, *SPIRE Brokerage event, Brussels, October 22nd 2013.*
- C44. Viokeral – Terra SA, “Olive mill by-products into clay ceramics”, *SPIRE Brokerage event, Brussels, October 22nd 2013.*

- C45. Viokeral – Terra SA, “Reduction of GHG Emissions. Valorisation of a variety of industrial inorganic waste or by-products into resources.”, *SPIRE and Catalysing the Circular Economy BROKERAGE EVENT, Brussels*, 3-4 October 2017.
- C46. Viokeral – Terra SA, “Valorisation of a variety of industrial inorganic waste or PROCESS by-products into resources TO GAIN Reduction of GHG Emissions AND INDUSTRIAL SYMBIOSIS THROUGH CIRCULAR ECONOMY PROCEDURES”, *SPIRE and Catalysing the Circular Economy BROKERAGE EVENT, Brussels*, 3-4 October 2017.

PAPERS IN NATIONAL CONFERENCE PROCEEDINGS

- C47. T. Karakasidis, F. Sofos, **D. Kasiteropoulou**, A. Liakopoulos, "Transfer computation by Molecular Dynamics simulation", *ROH 2006*, Patra Greece, November 2006 (in Greek).
- C48. **D. Kasiteropoulou**, F. Sofos, T. Karakasidis, A. Liakopoulos, "Multiscale Modelling in grooved channels", *ROH 2008*, Kozani Greece, November 2008 (in Greek).
- C49. X. Spiliotis, K. Ntampeglitis, **D. Kasiteropoulou**, V. Karayannis, G. Papapolymerou, " Utilization of olive mill by-products in the ceramic industry - CO2 reduction techniques", *6th Panhellenic Conference of Ceramics*, Athens Greece, 04/2014, 1-8 (in Greek).
- C50. S. Lamprakopoulos, K. Ntampeglitis, **D. Kasiteropoulou**, V. Karayannis, G. Papapolymerou, X. Spiliotis, " Study of thermal behavior of organic waste and clay soils mixtures", *THERMA 2014, 6th Panhellenic Conference on Thermal Analysis & Calorimetry*, Larisa, 09/2014, 1-8 (in Greek).
- C51. S. Lamprakopoulos, K. Ntampeglitis, **D. Kasiteropoulou**, V. Karayannis, G. Papapolymerou, X. Spiliotis, "Novel combined valorization of Mill Scale Waste and Sewage Sludge into fired clay bricks. Environmental impact", *2nd Environmental Thessaly Conference*, Skiathos Greece, 09/2015 (in Greek).
- C52. N.Michalolias, **D. Kasiteropoulou**, E. Keramaris, A. Liakopoulos, “Fluid flow simulation of flow in open channels with vegetation ”, *3rd Joint Conference: 13th Hellenic Hydrotechnical Association, 9th Hellenic Water Resources Management Committee and 1st Hellenic Water Association, "Integrated Water Resources Management in the New Era"*,pp. 385-294, Athens Greece, December 2015.

C53. E. Keramaris, A. Liakopoulos, G.Pechlivanidis, **D. Kasiteropoulou**, N.Michalolias, " A study of turbulent flow in open channels with vegetation ", ROH 2016, Patra Greece, December 2016 (in Greek).

REFERENCES

SCOPUS: 260

Google Scholar: 261

PREPARATION OF PROFESSIONAL GUIDES

D. Kasiteropoulou, T.Moisiadis " Professional guide implementation of ' Civil and Structural Engineer', Technological Educational Institute of Thessaly, 2012.

EVALUATOR IN JOURNALS & INTERNATIONAL CONFERENCES

- International Journal for Numerical Methods in Fluids,
- PRE XII – 12th International Conference on Protection & Restoration of the Environment, Skiathos, June 29 – July 3, 2014,
- 2nd EWaS International Conference: "Efficient & Sustainable Water Systems Management toward Worth Living Development", 1 - 4 JUNE 2016 Crete Island, Greece,
- 3rd EWaS International Conference on "Insights on the Water-Energy-Food Nexus", Lefkada Island, Greece, 27-30 June 2018.
- Fractal and Fractional,
- Micromachines,
- WSEAS,
- Energies,
- Fluids,
- Processes
- Physics of Fluids

EVALUATOR IN NATURAL OBJECTS

In collaboration with Ministry of Developments and Investments, Special Managing and Implementation Service in the areas of Research, Technological Development and Innovation (RTDI):

1. Title: " Development and Experimental Testing of Electrochemical Unit for the Purification of Liquid Effluents of the Chemical Accumulator Industry, Recycling of Valuable Ions and Utilization of Water in Agriculture, ACRONYME: ELECTRACCUM", project code T1EDK-02677 under the call RESEARCH -CREATE –INNOVATE.
2. Title: "Development of novel waste treatment methods (agro-livestock, oil mill and vegetable fat and oil wastes) with use of anaerobic digestion and simultaneous renewal gas production ", project code T1EDK-00471 under the call RESEARCH -CREATE –INNOVATE.
3. Title: " Development of Hydrometallurgical process for Metal Recovery from Fronted Circuit Boards in Pilot Scheme, a Zerowaste Process ", project code T1EDK-00219 under the call RESEARCH-CREATE –INNOVATE.