

Ioannis Manariotis

Associate Professor of Environmental Engineering



Department of Civil Engineering
Environmental Engineering Laboratory
University of Patras
265 04 Patras, Greece

Tel.: +302610 996535
Fax: +302610 996573
idman@upatras.gr

<http://www.eel.civil.upatras.gr>

Curriculum Vitae

EDUCATION:

- 2000 Doctorate in Civil Engineering, Civil Engineering Department, University of Patras, Patras, Greece.
- 1990 Diploma, Civil Engineering Department, University of Patras, Patras, Greece.

RESEARCH INTERESTS:

- Phototrophic wastewater treatment (microalgae; biofilms; biofuels)
- Resource recovery from wastewater
- Physicochemical water and wastewater treatment using novel sorbents
- Biological wastewater treatment with emphasis on the direct anaerobic treatment of low-strength wastewater using biofilm and sludge bed reactors
- Toxicity of nanoparticles on microalgae
- Advanced oxidation processes
- CO₂ sequestration of building materials amended with biochar

ACADEMIC EXPERIENCE:

- 1991-92 Research Assistant, Civil Engineering Department, University of Patras, Patras, Greece
- 1992-95 &
1996-98 Research and Teaching Assistant, Civil Engineering Department, University of Patras, Patras, Greece
- 1998-2000 &
2005-2009 Research Associate, Civil Engineering Department, University of Patras, Patras, Greece
- 2001-2002&
2004-2014 Associate Educational Staff in Environmental Design of Cities and Buildings Post Graduate Program, Hellenic Open University, Patras, Greece
- 2001-2008 Adjunct Lecturer, Civil Engineering Department, University of Patras, Patras, Greece
- 2009-2013 Lecturer, Civil Engineering Department, University of Patras, Patras, Greece
- 2013-2019 Assistant Professor, Civil Engineering Department, University of Patras, Patras, Greece

2019-present Associate Professor, Civil Engineering Department, University of Patras, Patras, Greece

PROFESSIONAL EXPERIENCE:

2001-2009 Environmental Engineer, Directorate of Environment and Planning and Directorate of Water Resources, Region of Western Greece (responsible for the evaluation of environmental impact studies related to infrastructure and environmental protection works, and for water resources management).

FELLOWSHIPS:

- Award from the Technical Chamber of Greece, 1989-90
- Graduate scholarship, Them. and Nik. Valsamakis Foundation, Athens, Greece, 1991-92
- Predoctoral fellowship in Civil Engineering, University of Patras, Patras, Greece, 1992-95 & 1996-98

MILITARY SERVICE:

1995-97 Hellenic Air Force

PROFESSIONAL REGISTRATION AND AFFILIATIONS:

Licensed Civil Engineer, Greece
Hellenic Civil Engineers Association
Technical Chamber of Greece (TCG)
European Geosciences Union (EGU)
International Water Association (IWA)
Sigma Xi, The Scientific Research Society
Water Environment Federation (WEF)

DOCTORAL DISSERTATION:

"The Anaerobic Process as the Initial Stage in the Treatment of Low-Strength Wastewater," (2000). Department of Civil Engineering, University of Patras, Patras, Greece

CHAPTER IN BOOK:

Manariotis, I.D., Grigoropoulos, S.G. and Hung, Y.T. (2010). "Anaerobic Treatment of Low-Strength Wastewater by a Biofilm Reactor." Handbook of Environmental Engineering, Vol. 11 *Environmental Bioengineering*, edited by L.K. Wang, J.H. Tay, S.T.L. Tay and Y.T. Hung, Humana Press, Springer Science+Buiseness, Totowa, NY, USA, https://doi.org/10.1007/978-1-60327-031-1_14

REFEREED PUBLICATIONS:

- A74 Bloutsos, A.A., Aravantinou, A., Manariotis, I.D. and Yannopoulos, P. (2023). "Seawater quality measurements at the two ports of Patras, Greece." *Environmental Sciences Proceedings 2023*, 26, 6. <https://doi.org/10.3390/environsciproc2023026006>
- A73 Tsavatopoulou, V.D., Vakros, J., and Manariotis, I.D. (2023). "Chlorococcum sp. biofilm growth on biochar from olive kernels solid support." *Journal of Chemical Technology and Biotechnology*, 98(8), 1986-1994. DOI 10.1002/jctb.7422
- A72 Biliiani, S.E. and Manariotis, I.D. (2023). "Sustainable treatment of primary and secondary effluent by algal-bacterial flocculent biomass in raceway ponds." *Journal of Environmental Management*, 343, 118167, <https://doi.org/10.1016/j.jenvman.2023.118167>
- A71 Tzanakis, N., Aravantinou, A.F. and Manariotis, I.D. (2023). "Short-term toxicity of ZnO nanoparticles on microalgae at different initial nutrient concentration." *Sustainability*, 15, 7853, <https://doi.org/10.3390/su15107853>
- A70 Kalampaliki, D., Jayasinghe, G.D.T.M., Avramiotis, E., Manariotis, I.D., Venieri, D., Pouloupoulos, S.G., Szpunar, J., Vakros, J. and Mantzavinos, D. (2023). "Application of a KOH-activated biochar for the activation of persulfate and the degradation of sulfamethoxazole." *Chemical Engineering Research and Design*, 194, 306-317. <https://doi.org/10.1016/j.cherd.2023.04.056>
- A69 Biliiani, S.E. and Manariotis, I.D. (2023). "Wastewater treatment by high density algal flocs for nutrient removal and biomass production." *Journal of Applied Phycology* <https://doi.org/10.1007/s10811-023-02931-2>.
- A68 Kalderis, D., Ahmed, M.J., Trang, K.T., Tsubota, T., Anastopoulos, I., Manariotis, I.D., Pashalidis, I. and Khataee, A. (2023). "Bamboo-derived adsorbents for environmental remediation: A review of recent progress." *Environmental Research*, 224, 115533. <https://doi.org/10.1016/j.envres.2023.115533>
- A67 Giannakopoulos, S., Vakros, J., Frontistis, Z., Manariotis, I.D., Venieri, D., Pouloupoulos, S.G. and Mantzavinos, D. (2023). "Biochar from lemon stalks: a highly active and selective carbocatalyst for the oxidation of sulfamethoxazole with persulfate". *Catalysts*, 13, 233, <https://doi.org/10.3390/catal13020233>
- A66 Sklivaniotis, L., Economou, P., Karapanagioti, H.K. and Manariotis, I.D. (2023). "Chlorine Removal from Water by Biochar Derived from Various Food Waste Natural Materials." *Environmental Processes*, 10 (4), <https://doi.org/10.1007/s40710-022-00617-4>
- A65 Giannakopoulos, S., Vakros, J., Manariotis, I.D., Mantzavinos, D. and Lianos, P. (2023). "Study of the functionalities of a biochar electrode combined with a photoelectrochemical cell." *Materials* 16, 43, 1-13. <https://doi.org/10.3390/ma16010043>
- A64 Biliiani, S.E., Vakros, J. and Manariotis, I.D. (2022). "Screening of raw and modified biochars from food wastes for the removal of phosphates, nitrates and ammonia from water." *Sustainability* 14, 16483. <https://doi.org/10.3390/su142416483>
- A63 Giannakopoulos, S., Vakros, J., Dracopoulos, V., Manariotis, I.D., Mantzavinos, D. and Lianos, P. (2022). "Enhancement of the photoelectrocatalytic degradation rate of a pollutant in the presence of a supercapacitor." *Journal of Cleaner Production*, 377, 134456, 1-7. <https://doi.org/10.1016/j.jclepro.2022.134456>

- A62 Dhawle, R., Vakros, J., Dracopoulos, V., Manariotis, I.D., Mantzavinos, D. and Lianos, P. (2022). "Enhancement of the photoelectrochemical production of hydrogen peroxide under intermittent light supply in the presence of a supercapacitor." *Electrochimica Acta*, 427, 140846, <https://doi.org/10.1016/j.electacta.2022.140846>
- A61 Giannakopoulos, S., Frontistis, Z., Vakros, J., Pouloupoulos, S.G., Manariotis, I.D. and Mantzavinos, D. (2022). "Combined activation of persulfate by biochars and artificial light for the degradation of sulfamethoxazole in aqueous matrices." *Journal of the Taiwan Institute of Chemical Engineering*, 136, 104440. <https://doi.org/10.1016/j.jtice.2022.104440>
- A60 Tsavatopoulou, V.D. and Manariotis, I.D. (2022). "Chlorococcum sp. and mixotrophic algal biofilm growth in horizontal and vertical oriented surfaces using wastewater and synthetic substrate." *Biomass Conversion and Biorefinery* (published May 8 2022). <https://doi.org/10.1007/s13399-022-02752-2>
- A59 Biliiani, S.E. and Manariotis, I.D. (2022). "Formation of algal flocs from activated sludge in synthetic medium and secondary treated wastewater." *Journal of Chemical Technology and Biotechnology*. DOI10.1002/jctb.7089
- A58 Biliiani, S.E. and Manariotis, I.D. (2021). "Sodium Chloride and Nitrogen effects on *Chlorella vulgaris* growth and biocommodities production." *Desalination and Water Treatment*, 237, 159–169 doi: 10.5004/dwt.2021.27729
- A57 Avramiotis, E., Frontistis, Z., Manariotis, I.D., Vakros, J. and Mantzavinos, D.. (2021). "On the performance of a sustainable rice husk biochar for the activation of persulfate and the degradation of antibiotics." *Catalysts*, 11, 1303, <https://doi.org/10.3390/catal11111303>
- A56 Tsavatopoulou, V.D., Aravantinou, A.F., Vakros, J., and Manariotis, I.D. (2021). "Conversion of *Scenedesmus rubescens* lipid into biodiesel by biochar of different origin." *Catalysts*, 11, 1116. <https://doi.org/10.3390/catal11091116>
- A55 Tsavatopoulou, V.D., Aravantinou, A.F., and Manariotis, I.D. (2021). "Biofuel conversion of *Chlorococcum sp.* and *Scenedesmus sp.* biomass by one and two-step transesterification." *Biomass Conversion and Biorefinery*, 11, 1301-1309 (published online 2019) <https://doi.org/10.1007/s13399-019-00541-y>
- A54 Avramiotis, E., Frontistis, Z., Manariotis, I.D., Vakros, J. and Mantzavinos, D. (2021). "Oxidation of sulfamethoxazole by rice husk biochar-activated persulfate." *Catalysts*, 11, 850. <https://doi.org/10.3390/catal11070850>
- A53 Vakros, J., Manariotis, I.D., Dracopoulos, V., Mantzavinos, D. and Lianos, P. (2021). "Biochar from Spent Malt Rootlets and its Application to an Energy Conversion and Storage Device." *Chemosensors*, 9, 57; <https://doi.org/10.3390/chemosensors9030057>
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- A51 Ntzoufra, P., Vakros, J., Frontistis, Z., Tsatsos, S., Kyriakou, G., Kennou, S., Manariotis, I.D., and Mantzavinos, D. (2021). "Effect of sodium persulfate treatment on the physicochemical properties and catalytic activity of biochar prepared from spent malt rootlets." *Journal of Environmental Chemical Engineering*, 9(2), 105071; <https://doi.org/10.1016/j.jece.2021.105071>
- A50 Aravantinou, A.F., Andreou, F, and Manariotis, I.D. (2020). "Long-Term Toxicity of ZnO Nanoparticles on *Scenedesmus Rubescens* Cultivated in Semi-Batch Mode." *Nanomaterials*, 10(11), 2262; doi:10.3390/nano10112262
- A49 Tsavatopoulou, V.D. and Manariotis, I.D. (2020). "The effect of surface properties on the formation of *Scenedesmus rubescens* biofilm." *Algal Research*, 52, 102095, 1-9. <https://doi.org/10.1016/j.algal.2020.102095>

- A48 Lykoudi, A., Frontistis, Z., Vakros, J. Manariotis, I.D. and Mantzavinos, D. (2020). "Degradation of sulfamethoxazole with persulfate using spent coffee grounds biochar as activator." *Journal of Environmental Management*, 271, 111022, 1-11. <https://doi.org/10.1016/j.jenvman.2020.111022>
- A47 Turlouki, K., Tsavatopoulou, V., Alexandropoulos, D., Manariotis, I.D. and Mazzucato, S. (2020). "A Novel Microalgae Harvesting Method Using Laser Micromachined Glass Fiber Reinforced Polymers." *Photonics*, 7(2), 42, <https://doi.org/10.3390/photonics7020042>
- A46 Tsavatopoulou, V.D., Vakros, J., and Manariotis, I.D. (2020). "Lipid conversion of *Scenedesmus rubescens* biomass into biodiesel using biochar catalysts from malt spent rootlets". *Journal of the Chemical Technology and Biotechnology*, 95, 2421-2429, <https://doi.org/10.1002/jctb.6424>
- A45 Grilla, E., Vakros, J. Konstantinou, I. Manariotis, I.D. and Mantzavinos, D. (2020). "Activation of Persulfate by Biochar from Malt Spent Rootlets for the Degradation of Trimethoprim in the Presence of Inorganic Ions." *Journal of Chemical Technology and Biotechnology*, 95, 2348-2358, DOI 10.1002/jctb.6513
- A44 Paschalidou, P., Paschalidis, I., Manariotis, I.D., and Karapanagioti, H.K. (2020). "Hyper sorption capacity of raw and oxidized biochars from various feedstocks for U(VI)." *Journal of Environmental Chemical Engineering*, 8(4), 1-6, <https://doi.org/10.1016/j.jece.2020.103932>
- A43 Tsouloufa, A., Dailianis, S., Karapanagioti, H.K., Manariotis, I.D. (2020). "Physicochemical and Toxicological Assay of Leachate from Malt Spent Rootlets Biochar". *Bulletin of Environmental Contamination and Toxicology*, 104, 634-641. <https://doi.org/10.1007/s00128-020-02839-4>
- A42 Anastopoulos, I., Pashalidis, I., Orfanos, A.G., Manariotis, I.D., Tatarchuk, T., Sellaoui, L., Bonilla-Petriciolet, A., Mittal, A. and Núñez-Delgado, A. (2020). "Removal of caffeine, nicotine and amoxicillin from (waste)waters by various adsorbents. A review." *Journal of Environmental Management*, 261, Article number 110236, 1-9. <https://doi.org/10.1016/j.jenvman.2020.110236>
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- A40 Marioglou, E., Frontistis, Z., Vakros, J. and Manariotis, I.D. and Mantzavinos, D. (2019). "Activation of persulfate by biochars from valorized olive stones for the degradation of sulfamethoxazole." *Catalysts*, 9(5), 419. Special Issue: Trends in Catalytic Wet Peroxide Oxidation Processes <https://doi.org/10.3390/catal9050419>.
- A39 Orfanos, A.G., Manariotis, I.D. and Karapanagioti, H.K. (2018). "Removal of methylene blue from water by food industry by-products and biochars." *Desalination and Water Treatment* 103, 113-121. doi:10.5004/dwt.2018.21999.
- A38 Kemmou, L., Frontistis, Z., Vakros, J., Manariotis, I.D. and Mantzavinos, D. (2018). "Degradation of Antibiotic Sulfamethoxazole by Biochar-Activated Persulfate: Factors Affecting the Activation and Degradation Processes." *Catalysis Today*, 313, 128-133. <https://doi.org/10.1016/j.cattod.2017.12.028>
- A37 Aravantinou, A.F., Andreou, F, and Manariotis, I.D. (2017). "Long-Term Toxicity of ZnO Nanoparticles to *Scenedesmus Rubescens* Cultivated in Different Media." *Scientific Reports* 7:13454, 1-11, DOI:10.1038/s41598-017-13517-7.
- A36 Aravantinou, A.F., Barkonikou, E, and Manariotis, I.D. (2017). "Microalgae Biomass and Lipid Production Using Primary Treated Wastewater." *Desalination and Water Treatment* 91, 228-234. doi: 10.5004/dwt.2017.21069

- A35 Bloutsos, A.A., Manariotis, I.D. and Yannopoulos, P.C. (2017). "Levels of Metals Pb, Mn and Fe in the Period 2006-2007 in the Surface Water and Groundwater of Alfeios Catchment, Greece." *Environmental Processes* 4 (Suppl 1):S23–S34 doi:10.1007/s40710-017-0233-z
- A34 Manariotis, I.D., Karapanagioti, H.K., and Werner, D. (2017). "In Focus: Novel Sorbents for Environmental Remediation." *Journal of Chemical Technology and Biotechnology* 92(8), 1861. DOI 10.1002/jctb.5329.
- A33 Boutsika, L.G., Karapanagioti, H.K., and Manariotis, I.D. (2017). "Effect of Chloride and Nitrate Salts Effect on Hg(II) Sorption by Raw and Pyrolyzed Malt Spent Rootlets." *Journal of Chemical Technology and Biotechnology*, 92(8), 1912-1918. DOI 10.1002/jctb.5215.
- A32 Handakas, E., Manariotis, I.D., Yannopoulos, P., Zarkadas, I., and Sarigiannis, D. (2017). "Decision Support Tool for Urban Solid Waste Management." *Fresenius Environmental Bulletin* 26(1), 405-412.
- A31 Aravantinou, A.F., Frementiti, A., and Manariotis, I.D. (2016). "Post Treatment of Primary and Secondary Effluent by *Chlorococcum* sp." *Environmental Processes*, 3 (Suppl 1), S35-S45. DOI 10.1007/s40710-016-0153-3
- A30 Toufexi, E., Dailianis, S., Vlastos, D., and Manariotis, I.D. (2016). "Mediated Effect of Ultrasound Treated Diclofenac on Mussel Hemocytes: First evidence for the Involvement of Respiratory Burst Enzymes in the Induction of DCF-Mediated non Specific Mode of Action." *Aquatic Toxicology*, 175, 144-153. DOI: 10.1016/j.aquatox.2016.03.017
- A29 Sfaelou, S., Papadimitriou, H., Manariotis I.D., Rouse, J., Vakros, J., and Karapanagioti, H.K. (2016). "Treatment of Low Strength Municipal Wastewater Containing Phenanthrene Using Activated Sludge and Biofilm Process". *Desalination and Water Treatment*, 57(26), 12047-12057. DOI:10.1080/19443994.2015.1048735
- A28 Vergini, S., Aravantinou, A.F., and Manariotis, I.D. (2016) "Harvesting of Freshwater and Marine Microalgae by Common Coagulants and Magnetic Microparticles". *Journal of Applied Phycology*, 28(2), 1041-1049. DOI: 10.1007/s10811-015-0662-x
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- A26 Sygouni, V., Manariotis, I.D., and Chrysikopoulos, C.V. (2016). "Experimental Investigation of the Effect of Carbon Dioxide on *Pseudomonas putida* Biofilms in a Two-Dimensional Glass Network Micromodel." *International Journal of Greenhouse Gas Control*, 46, 240-247. <http://dx.doi.org/10.1016/j.ijggc.2016.01.016>
- A25 Manariotis, I.D., Fotopoulou, K.N. and Karapanagioti, H.K. (2015). "Preparation and Characterization of Biochar Sorbents Produced from Malt Spent Rootlets." *Industrial & Engineering Chemistry Research*, 54(39), 9577-9584. DOI: 10.1021/acs.iecr.5b02698
- A24 Sfaelou, S., Vakros, J., Manariotis I.D., and Karapanagioti, H.K. (2015). "The Use of Potentiometric Mass Titration (PMT) Technique for Determining the Acid-base Behavior of Activated Sludge". *Global Nest*, 17 (2), 397-405.
- A23 Aravantinou, A.F., Tsarpali, V., Dailianis, S., and Manariotis, I.D. (2015). "Effect of cultivation media on the toxicity of ZnO nanoparticles to freshwater and marine microalgae." *Ecotoxicology and Environmental Safety*, 114, 109-116. <http://dx.doi.org/10.1016/j.ecoenv.2015.01.016>
- A22 Leftheriotis, G., Liveri, M., Galanopoulou, M., Manariotis, I.D., and Yianoulis, P. (2014). "A Simple Method for the Fabrication of WO₃ Films with Electrochromic and Photo Catalytic Properties". *Thin Solid Films*, 573, 6-13. <http://dx.doi.org/10.1016/j.tsf.2014.10.087>

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- A20 Boutsika, L.G., Karapanagioti, H.K., and Manariotis, I.D. (2014). "Aqueous Mercury Sorption by Biochar from Malt Spent Rootlets." *Water, Air & Soil Pollution* 225 (1), Article 1805. DOI [10.1007/s11270-013-1805-9](https://doi.org/10.1007/s11270-013-1805-9)
- A19 Manariotis, I.D. and Yannopoulos, P.C. (2014). "Impact of Human Activities and Infrastructure Works on Hydro Morphological Characteristics of Alfeios River, Greece." *Global Nest*, 16 (1), 136-145.
- A18 Aravantinou, A.F., Theodorakopoulos, M.A., and Manariotis, I.D. (2013). "Selection of Microalgae for Wastewater Treatment and Potential Lipids Production." *Bioresource Technology*, 147, 130-134. <http://dx.doi.org/10.1016/j.biortech.2013.08.024>
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- A16 Chrysikopoulos, C.V., Manariotis, I.D. and V. Sigouna. (2013). "Virus Inactivation by High Frequency Ultrasound in Combination with Visible Light." *Colloids and Surfaces B: Biointerfaces*, 107(1), 174-179. <http://dx.doi.org/10.1016/j.colsurfb.2013.01.038>
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- A11 Chrysikopoulos, C.V., Masciopinto, C., La Mantia, R. and Manariotis, I.D. (2010). "Removal of Biocolloids Suspended in Reclaimed Wastewater by Injection into a Fracture Aquifer Model." *Environmental Science and Technology*, 44(3), 971-977, 2010. doi: [10.1021/es902754n](https://doi.org/10.1021/es902754n)
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- A9 Manariotis, I.D. and Grigoropoulos, S.G. (2008). "Restart of Anaerobic Filters Treating Low-Strength Wastewater." *Bioresource Technology*, 99 (9), 3759-3589. doi: [10.1016/j.biortech.2007.07.048](https://doi.org/10.1016/j.biortech.2007.07.048).
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- A4 Hiras, D.N., Manariotis, I.D. and Grigoropoulos, S.G. (2004). "Organic and Nitrogen Removal in a Two-Stage Rotating Biological Contactor Treating Municipal Wastewater." *Bioresource Technology*, 93 (1), 91-98. doi:[10.1016/j.biortech.2003.06.005](https://doi.org/10.1016/j.biortech.2003.06.005).
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- C10 Giannelos, D. and Manariotis, I.D. (2012). Dewatering of sewage sludge assisted by solar energy. *Ecotechnologies for Wastewater Treatment 2012 International Conference, IWA Specialist Conference*, June 25-27, 2012, Santiago de Compostela, Spain.
- C9 Boutsika, L., Karapanagioti, H.K., and Manariotis, I.D. (2012). Mercury sorption by biochar produced from Malt Spent Rootlets. *Ecotechnologies for Wastewater Treatment 2012 International Conference, IWA Specialist Conference*, June 25-27, 2012, Santiago de Compostela, Spain.
- C8 Manariotis, I.D., Anagnostopoulos, V.A., Karapanagioti, H.K. and Chrysikopoulos, C.V. (2011). Mercury sorption onto malt spent rootlets. *2011 AGU Fall Meeting*, December 5-9, 2011, San Fransisco, (Abstract), *EOS, Transactions, American Geophysical Union*, H21A-1043.
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- C6 Manariotis, I.D., Kapanagioti, H.K. and Chrysikopoulos, C.V. (2011). Degradation of PAHs and biocolloids by high frequency ultrasound, (Abstract), *EGU, European Geoscience Union General Assembly 2011 Vienna*, April 3-8, Vienna, Austria, HS8.1.7/A467-EGU2011-11157, 2011.
- C5 Chrysikopoulos, C.V., Masciopinto, C., La Mantia, R. and Manariotis, I.D. (2010). Clogging of fractured formations by biocolloids suspended in reclaimed wastewater, *Proceedings of the International Conference Protection and Restoration of the Environment X*, July 5-9, 2010, Corfu, Greece, PRE1093ACT.
- C4 Chrysikopoulos, C.V., Manariotis, I.D., Sigouni, V., Vantarakis, A., Argiriou, A., Kapanagioti, H.K., Vakros, J., Kornaros, M., Paraskeva, C.A. and Dailianis, S. (2010). Inter-university network for biocolloid fate and transport in environmental systems «BIOMET», *Proceedings of the International Conference Protection and Restoration of the Environment X*, July 5-9, 2010, Corfu, Greece, PRE1237ACT, 2010.
- C3 Chrysikopoulos, C.V., Masciopinto, C., La Mantia, R. and Manariotis, I.D. (2010). "Removal of biocolloids suspended in reclaimed wastewater by injection in a fractured aquifer model", (Abstract), *EGU, European Geoscience Union General Assembly 2010*, May 2-7, 2010, Vienna, Austria, HS7.8/A317-EGU2010-6827, 2010.
- C2 Chrysikopoulos, C.V., Masciopinto, C., La Mantia, R. and Manariotis, I.D. (2009). "Clogging of Fractured Formations by Biocolloids Suspended in Reclaimed Wastewater." *2009 AGU Fall Meeting*, December 14-18, 2009, San Fransisco, (Abstract), *EOS, Transactions, American Geophysical Union*, H53A-0911.
- C1 Manariotis, I.D., Yiannopoulos, A.Ch., and Chrysikopoulos, C.V. (2008). "Performance of a solar reactor for anaerobic wastewater treatment under different climatic conditions." (Abstract), *EGU, European Geoscience Union General Assembly 2008*, April 13-18, 2008, Vienna, Austria, HS2.1/NP1.05-1TU5P-0223.

PAPERS IN SEMINARS:

- D2 Manariotis, I.D. (2005). "Greek Experience in Project Evaluation." Seminar on Sharing Experience of Environmental Integration "Moving Forward". *Greening Regional Development Programmes (GRDP)*, InterregIIIA, Vienna, Austria, May 18 2005.
- D1 Manariotis, I.D. (1996). "Anaerobic Treatment of Low Strength Wastewater and Sewage". Seminar Treatment and Disposal of Industrial Wastewater. *GSRT Human Resource Networks for R&D Information Dissemination*, Department of Civil Engineering, University of Patras, November 21-22, 1996, Patras, 233-238.

RESEARCH PROJECTS:

- E11 2020-2021, Project coordinator, "Development of a Novel Attached Biomass Photobioreactor for Wastewater Treatment and Biomass Production". Project No. MIS5047157. Greece and the European Union (European Social Fund-ESF) through the Operational Program "Human Resources Development, Education and Lifelong Learning 2014-2020". Budget 41.542 €. Department of Civil Engineering, University of Patras, Patras, Greece.
- E10 2015-2017. "Investigation of Seawater Quality at the New Port of Patras". No. D 935. Patras Port Authority. Project coordinator Dr. P.C. Yannopoulos. Department of Civil Engineering, University of Patras, Patras, Greece.
- E9 2012-2015. "Geomechanics and Environment of CO₂ Geological Storage. "Hellenic Ministry of National Education and Religious Affairs, THALIS. Budget 521,740 €. Project coordinator Dr. E. Papamichos. Department of Civil Engineering, Aristotle University of Thessaloniki, Greece.
- E8 2012-2015, "BioNFate-Fate and Transport of Bocolloids and Nanoparticles in Groundwater and Effects of Polluted Water on Public Health." Hellenic Ministry of National Education and Religious Affairs, ARISTEIA I (No. 1185). Budget 500,000 €. Project coordinator Dr. C.V. Chrysikopoulos. Department of Civil Engineering, University of Patras, Patras, Greece.
- E7 2011-2014, Project coordinator, "Advanced Wastewater Treatment by Microalgae and Feasibility of Microalgae for Biodiesel Production." Program C. Carathéodory. Budget 33,000 €. Department of Civil Engineering, University of Patras, Patras, Greece.
- E6 2007-2008, "PRIMAC-Integrated Actions in Order to Protect Coastal Areas from Anthropogenic Pollution and for Groundwater Restoration by Reversing the Seawater Intrusion in Coastal Aquifers." INTERREG IIIA Greece-Italy 2000-2006. Budget 932.000€, Department of Civil Engineering, University of Patras, Greece, Consiglio Nazionale Delle Ricerche, Istituto di Ricerca Sulle Acque, Bari, Italy.
- E5 2005-2007, "Development of Low-Cost Methodologies for Fast Prediction and Monitoring of Rivers Water Quality", EPEAEK-PYTHAGORAS II, Budget 50,000 €, Civil Engineering Department, University of Patras, Patras, Greece.
- E4 2005-2007, "Reduction of Environmental Pollution with Use of Solar Energy for Drying of Products -Improvement of Biochemical Processes and Rational Installation of Emission of Pollutants Sources", EPEAEK ARCHIMEDES II, Budget 75,000 €, Department of Mechanical Engineering, Technological Educational Institute of Patras, Patras, Greece.
- E3 2005-2007, "Greening Regional Development Programmes", Region of Western Greece, UK Environment Agency.
- E2 1998-00, "ANODOS-Development of a System for Optimum Resources Allocation for Highway Maintenance in Greece", Civil Engineering Department, University of Patras, Patras, Greece.

E1 1991-92, "Research Investigation of Physical-Chemical Parameters of Seawater and its Biological Pollution Potential on Underwater Construction in the Area of Rio-Antrirrio for the Bridge Project", Civil Engineering Department, University of Patras, Patras, Greece.

ADVISEES:

Ph.D. Students:

Georgios Karageorgos, 2021-present

Styliani Biliani, 2019-present

Vasilliki Tsavatopoulou, 2017-present

Andriana F. Aravantinou, 2018

M.S. Students (Thesis option):

Nikolaos Tzanakis, 2021

Paraskevi Paliatsa, 2021

Rafael Papadimitriou, 2021

Georgios Karageorgos, 2021

Styliani Mpiliani, 2020

Savvas Paraskevas Perakis, 2019

Georgantzoglou Miltiadis, 2019

Marianthi Ageli, 2019

Emmanuel Manoussakis, 2018

George Lekkas, 2018

Dionyssios Vassilopoulos, 2018

Savvas Perakis, 2018

Leandros Sklivaniotis, 2017

Alexios Orfanos, 2-17

Charalambos Sinos, 2015

Ioannis Zaharis, 2015

Sofia Vergini, 2014

Undergraduate Students (Thesis):

Koutsoukos Nikolaos, 2022

Foteinos Vasileios, 2022

Apostolos Mazarakis, 2022

Aristedes Korompelis, 2021

Artemis Mavri, 2021

Elpida Kapsimali, 2021

Dimos Asimakopoulos, 2019

Demetrios Fakas, 2018

Savvas Perakis, 2016

Marianthi Ageli, 2016

Eleni Dermati, 2015

Christos Kolotouros, 2015

Manolis Manoussakis, 2015

Eirini Mparkonikou, 2015

Alexios Orfanos, 2015

Charoula Kamenidou, 2015

Demetrios Vassilopoulos, 2015

Styliani Drakopoulou, 2014

Anastasia Frementiti, 2014

Fytoula Andreou, 2014

Maria Eirini Papanicolopoulou, 2014

Antonios Mannes, 2014

Mena Mastoraki, 2013

Ioannis Zaharis, 2013

Athanasios Sevastopoulos, 2011

Konstantinos Katsaros, 2011

Theoni-Maria Massara, 2011

SPECIAL ISSUES ORGANIZER:

Special Issue on: Novel Sorbents for Environmental Remediation, Journal of Chemical Technology and Biotechnology, 92, 1861, 2017.

CONFERENCES: Member of Organising and Scientific Committees

- Member of the Organising and Scientific Committee, Hybrid Conference Protection and Restoration of the Environment XVI, July 5-8 2022, Kalamata, Greece.
- Convener, Presenting Interactive Content (virtual PICO), SSS7.8 "Novel Sorbents Materials and Humid Substances for Environmental Remediation", vPICO Session, European Geophysical Union General Assembly 2021, vEGU21 Gather Online: , April 19-30 2021.
- Member of the Organising and Scientific Committee, e-conference Protection and Restoration of the Environment XV, 2020, Greece.
- Convener, Presenting Interactive Content (PICO), SSS7.5 "Novel Sorbents Materials for Environmental Remediation", PICO Session, European Geophysical Union General Assembly 2020 Online, May 4-8, 2020, Vienna, Austria.
- Convener, Presenting Interactive Content (PICO), SSS8.4 "Novel Sorbents Materials for

- Environmental Remediation", PICO Session, European Geophysical Union General Assembly 2019, April 7-12, 2019, Vienna, Austria.
- Convener, Presenting Interactive Content (PICO), SSS8.2 "Novel Sorbents Materials for Environmental Remediation", PICO Session, European Geophysical Union General Assembly 2018, April 8-13, 2018, Vienna, Austria.
 - Convener, Presenting Interactive Content (PICO), SSS8.7 "Novel Sorbents Materials for Environmental Remediation", PICO Session, European Geophysical Union General Assembly 2017, April 23-28, 2017, Vienna, Austria.
 - Member of the Scientific Committee, "5th Panhellenic Conference of Green Chemistry & Sustainable Development", Hellenic Green Chemistry Network, October 20-22, 2017, Patras, Greece.
 - Convener, Presenting Interactive Content (PICO), SSS8.7 "Novel Sorbents Materials for Environmental Remediation", PICO Session, European Geophysical Union General Assembly 2017, April 23-28, 2017, Vienna, Austria.
 - Convener, Presenting Interactive Content (PICO), SSS8.3 "Novel Sorbents Materials for Environmental Remediation", PICO Session, European Geophysical Union General Assembly 2016, April 17-22, 2016, Vienna, Austria.
 - Convener, SSS8.1 "Novel Sorbents Materials for Environmental Remediation", European Geophysical Union General Assembly 2015, April 12-17, 2015, Vienna, Austria.
 - Convener, SSS9.8 "Novel Sorbents Materials for Environmental Remediation", European Geophysical Union General Assembly 2014, April 27-May 2, 2014, Vienna, Austria.
 - Convener, SSS2.4 "Novel Sorbents Materials for Environmental Remediation", European Geophysical Union General Assembly 2013, April 7-12, 2013, Vienna, Austria.
 - Member of the Organizing and Scientific Committee, "Integrated Management of Water Resources Towards Sustainable Development", 2nd Conference of Hellenic Hydrotechnical Association and Greek Committee for Water Resources Management, October 11-13, 2012, Patras, Greece.
 - Member of the Organizing Committee, EUCEET Association Conference, "New trends and challenges in civil engineering education", November 24-25, 2011, Patras, Greece.
 - Co-Convener, HS8.1.7 session on "Fate and Transport of Biocolloids in Environmental Systems", European Geophysical Union General Assembly 2011, April 4, 2011, Vienna, Austria.

MEMBER OF EDITORIAL BOARD:

- Biotechnology for Biofuels and Bioproducts, Associate Editor
- Frontiers in Water, Associate Editor
- Applied Sciences, Editor Board in the section of Green Sustainable Science and Technology
- American Journal of Environmental Engineering, Open Access, Scientific and Academic Publishing, Editorial Board

REVIEWER IN JOURNALS:

- | | |
|---|--|
| • <i>American Journal of Environmental Engineering</i> | • <i>Arabian Journal of Chemistry</i> |
| • <i>Applied Microbiology and Biotechnology</i> | • <i>Biomass Conversion and Biorefinery</i> |
| • <i>Applied Sciences</i> | • <i>Desalination and Water Treatment Journal</i> |
| • <i>Bulletin of Environmental Contamination and Toxicology</i> | • <i>Ecotoxicology and Environmental Safety</i> |
| • <i>Canadian Journal of Microbiology</i> | • <i>Environmental Pollution</i> |
| • <i>Chemical Engineering Journal</i> | • <i>Environmental Processes</i> |
| • <i>Chemosphere</i> | • <i>Environmental Progress and Sustainable Energy</i> |
| • <i>CLEAN - Soil, Air, Water</i> | • <i>Environmental Protection Engineering</i> |
| • <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> | • <i>Environmental Science and Technology</i> |
| • <i>Aquatic Toxicology</i> | • <i>Environmental Technology</i> |
| | • <i>Fresenius Environmental Bulletin</i> |
| | • <i>Fuel Processing Technology</i> |

- *Global Nest*
- *Hydrological Sciences Journal*
- *International Journal of Phytoremediation*
- *Industrial & Engineering Chemistry Research*
- *Journal of Applied Phycology*
- *Journal of Applied Phycology*
- *Journal of Chemical Technology Biotechnology*
- *Journal of Environmental Chemical Engineering*
- *Journal of Hazardous Materials*
- *Journal of Environmental Quality*
- *Journal of Marine Biology & Oceanography*
- *Journal of Water, Sanitation and Hygiene for Development*
- *Land Degradation & Development*
- *Process Biochemistry*
- *Science of the Total Environment*
- *Scientific Reports*
- *Transport in Porous Media*
- *Water*
- *Water Air & Soil Pollution*
- *Water Environment Research*
- *Water Research*
- *Water Science & Technology*

REVIEWER IN INTERNATIONAL CONFERENCES:

- *IWA Regional Symposium on Water, Wastewater & Environment: Traditions & Culture, 22-24 March 2014, Patras, Greece.*
- *IWA World Water Congress & Exhibition, 21- 26 September 2014, Lisbon, Portugal.*
- *IWA World Water Congress & Exhibition, 16- 21 September 2012, Busan, Korea.*

EVALUATOR IN RESEARCH PROPOSALS:

- 2022, Hellenic Foundation for Research and Innovation.
- 2022, National Science Centre, Poland.
- 2015, 2016 ERANETMED Call of Program Owners from EU Member States, Associated Countries and Mediterranean Partner Countries.
- 2015, German-Egyptian Research Fund GERF, German Ministry of Education and Research.
- 2014-2022, National Priority Research Programme of Qatar, Qatar.
- 2010, National Framework Programmes for Research Technological Development and Innovation, Research Promotion Foundation, Cyprus.

TEACHING ACTIVITIES:

University of Patras

Undergraduate courses

Wastewater Treatment
Environmental Chemistry
Environmental Measurements
Ecology for Civil Engineers

Graduate courses

Design of Wastewater Treatment Facilities
Experimental Analysis and Design of Environmental Protection Works
Natural Wastewater Treatment Systems
Resource recovery from wastewater
Modelling of wastewater treatment plants

Hellenic Open University (Graduate courses)

Design, Environmental Consequences and Methods for their Evaluation (PSE51)
Construction Law and Construction Safety (DCHT60)
Liquid Waste Management (DIA60)