Short Curriculum Vitae Dimitrios N. Christodoulou

Personal Information

Dimitrios N. Christodoulou

Dr. Civil Engineer

Associate Professor of Soil Mechanics

University of Thessaly, School of Technology, Department of Environmental Sciences

Gaiopolis Campus, 415 00 Larissa, Greece

Date of birth: 05-06-1978

Marital status: Married, one daughter and one son

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| Studies | |
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| 2010 | PhD. in Soil Mechanics, Department of Civil Engineering, School of Engineering, |
| | Democritus University of Thrace, Greece |
| 2005 | M.Sc. in Hydraulics, Department of Civil Engineering, School of Engineering, Democritus |
| | University of Thrace, Greece |
| 2004 | Integrated Master in Civil Engineering, Department of Civil Engineering, School of |
| | Engineering, Democritus University of Thrace, Greece |

| Professional Experience | | |
|---|--|--|
| Associate Professor of Soil Mechanics | | |
| Department of Environmental Sciences, University of Thessaly, Greece | | |
| Assistant Professor | | |
| Department of Environmental Sciences, University of Thessaly, Greece | | |
| Assistant Professor | | |
| General Department of Larissa, University of Thessaly, Greece | | |
| Academic Scholar, Undergraduate Program of Civil Engineering T.E. (Trikala), | | |
| University of Thessaly, Greece | | |
| Research Associate, Postgraduate Program "Architectural and Structural Restoration | | |
| of Historic Buildings and Ensembles", Department of Civil Engineering T.E. (Trikala), | | |
| TEI of Thessaly, Greece | | |
| Academic Scholar, Department of Civil Engineering T.E. (Trikala), School of | | |
| Technological Applications, T.E.I. of Thessaly, Greece | | |
| Research Associate, Department of Electrical Engineering, T.E.I. of Central Greece | | |
| Research Associate, Department of Electrical Engineering, T.E.I. of Lamia | | |
| Civil engineer engaged in the construction of private and public projects | | |
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Academic and educational activities

- Educational activities:
 - Teaching undergraduate courses (Department of Environmental Sciences, University of Thessaly, Greece):
 - Soil Mechanics
 - Environmental Geology
 - Solid Waste Treatment and Management Technologies
 - Management of Environmental Projects
 - Principles of Environmental Planning
 - Technical Materials and Environment
 - Land Management and Restoration
 - Project Planning and Management Legislation
 - Management of Geotechnical Constructions
 - Environmental Legislation
 - Teaching postgraduate courses (Program of Postgraduate studies "Environmental Management", Department of Environmental Sciences, University of Thessaly, Greece):
 - Biosphere, Energy and Climate Change
 - Natural Resource Management and Circular Economy
 - Environment and Technical Projects
 - Principal Supervisor of 123 undergraduate students' theses [Department of Environmental Sciences, University of Thessaly and Department of Civil Engineering T.E. (Trikala), T.E.I. of Thessaly]
 - Principal Supervisor of 10 postgraduate students' theses [Department of Environmental Sciences, University of Thessaly and Department of Civil Engineering T.E. (Trikala), T.E.I. of Thessaly]
 - Co-supervision of 4 doctoral dissertations (Department of Environmental Sciences, University of Thessaly and Department of Forestry, Wood Sciences and Design, University of Thessaly)
- ➤ Director of "Chemical and Construction Materials Technology" Research Laboratory, Department of Environmental Sciences, University of Thessaly (2023 today)
- ➤ Head of the "Geoenvironmental Technology and Soil Management" Laboratory, Department of Environmental Sciences, University of Thessaly (2021 today)

Scientific and research activities

- Scientific and research interests:
 - Development and documentation of environmentally friendly injection materials from microfine cements for on-site soil improvement and reinforcement
 - Geosynthetics
 - Laboratory determination of soil shear strength parameters
 - Environmental planning of technical projects

- Slope stability, landslides
- Waste management from excavations, constructions, and demolition
- Participation in 11 research and development projects
- Reviewer for international scientific journals (10)
- ➤ Member of the Hellenic Association of Geosynthetic Materials
- Member of the International Geosynthetics Society
- Member of the Hellenic Scientific Society of Soil Mechanics and Geotechnical Engineering
- Member of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

Publications

In peer-reviewed international scientific journals

- Pantazopoulos I.A., Markou I.N., Christodoulou D.N., Droudakis A.I., Atmatzidis D.K., Antiohos S.K. and Chaniotakis E. (2012). "Development of Microfine Cement Grouts by Pulverizing Ordinary Cements". Cement & Concrete Composites, Elsevier, Vol. 34, Issue 5, pp. 593–603. https://www.sciencedirect.com/science/article/abs/pii/S0958946512000170
- 2. Markou I.N., **Christodoulou D.N.** and Papadopoulos B.K., (2015). "Penetrability of Microfine Cement Grouts: Experimental Investigation and Fuzzy Regression Modeling". *Canadian Geotechnical Journal*, Vol. 52, Issue 7, pp. 868–882. https://doi.org/10.1139/cgj-2013-0297
- 3. Markou, I.N., **Christodoulou, D.N.**, Petala, E.S., Atmatzidis, D.K., (2018). "Injectability of Microfine Cement Grouts into Limestone Sands with Different Gradations: Experimental Investigation and Prediction". *Geotechnical and Geological Engineering Journal*, Vol. 36, Issue 2, pp. 959–981. https://doi.org/10.1007/s10706-017-0368-8
- 4. Markou I.N., Kakavias Ch. K., **Christodoulou D.N.**, Toumpanou I. and Atmatzidis D.K., (2020). "Prediction of cement suspension groutability based on sand hydraulic conductivity". *Soils and Foundations*, Vol. 60, Issue 4, pp. 825-839. https://doi.org/10.1016/j.sandf.2020.05.011
- Lokkas Ph., Papadimitriou E., Alamanis N., Papageorgiou G., Christodoulou D. and Chrisanidis Th., (2021). "Significant Foundation Techniques for Education: A Critical Analysis". WSEAS Transactions on Advances in Engineering Education, ISSN / E-ISSN: 1790-1979 / 2224-3410, Vol. 18, 2021, Art.#2, pp. 7-26. DOI: 10.37394/232010.2021.18.2
- 6. Alamanis N., Lokkas Ph., Chrysanidis Th., **Christodoulou D.** and Paschalis E., (2021). "Assessment Principles for the Mechanical Behavior of Clay Soils". *WSEAS Transactions on Applied and Theoretical Mechanics*, ISSN / E-ISSN: 1991-8747 / 2224-3429, Vol. 16, 2021, Art.#6, pp. 47-61. DOI: 10.37394/232011.2021.16.6
- 7. Lokkas Ph., Chouliaras I., Chrisanidis Th., **Christodoulou D.**, Papadimitriou E. and Paschalis E., (2021). "Historical background and evolution of Soil Mechanics". *WSEAS Transactions on Advances in Engineering Education*, ISSN / E-ISSN: 1790-1979 / 2224-3410, Vol. 18, 2021, Art.#10, pp. 96-113. DOI:10.37394/232010.2021.18.10
- 8. **Christodoulou D.**, Markou I. and Droudakis A., (2021). "Experimental Investigation of Microfine Cement Suspensions Injectability in Sandy Soils". *International Journal of Environmental Science*, ISSN: 2367-8941, Vol. 6, pp. 445-456. Published: September 27, 2021.

- https://www.iaras.org/iaras/home/caijes/experimental-investigation-of-microfine-cement-suspensions-injectability-in-sandy-soils
- 9. 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". *Mater. Proc. 2021*, Volume 5, Issue 1, 6.
- 10. **Christodoulou D.**, Lokkas Ph., Markou I., Droudakis A., Chouliaras I. and Alamanis N., (2021). "Principles and Developments in Soil Grouting: A Historical Review". *WSEAS Transactions on Advances in Engineering Education*, ISSN / E-ISSN: 1790-1979 / 2224-3410, Vol. 18, 2021, Art. #18, pp. 175-191. DOI: 10.37394/232010.2021.18.18
- 11. **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
- 12. **Christodoulou D.**, (2022). "Experimental Evaluation of Cement Suspensions Injectability into Sands". *Aspects in Mining & Mineral Science (AMMS) Journal*, ISSN: 2578-0255, Vol. 8, Issue 3, pp. 935-938. AMMS. 000687. 2022. Published: January 06, 2022. DOI: 10.31031/AMMS.2021.08.000687
- 13. **Christodoulou D.**, (2022). "Experimental Investigation of the Effect of Water-to-Cement Ratio on the Penetrability of CEM I Based Cement Suspensions". *Research & Development in Material Science (RDMS) Journal*, ISSN: 2576-8840, Vol. 16, Issue 4, pp. 1843-1847, RDMS.000891. 2022. Published: January 24, 2022. DOI: http://dx.doi.org/10.31031/rdms.2022.16.000891
- 14. **Christodoulou D.** and Droudakis A., (2022). "Effect of superplasticizer addition on injectability of CEM II/B-M based cement grouts". *Aspects in Mining & Mineral Science Journal (AMMS)*, ISSN: 2578-0255, Vol. 8, Issue 4, pp. 950-955. AMMS. 000693. 2022. Published: February 07, 2022. DOI: 10.31031/AMMS.2022.08.000693
- 15. **Christodoulou D.**, (2022). "Investigation of the Penetrability of CEM II/B-M Based Microfine Cement Grouts in Composite Sands with Different Gradation". *Research & Development in Material Science (RDMS) Journal*, ISSN: 2576-8840, Vol. 16, Issue 4, pp. 1859-1862. RDMS.000893. 2022. Published: February 10, 2022. DOI: http://dx.doi.org/10.31031/rdms.2022.16.000893
- 16. **Christodoulou D.**, (2022). "Effect of Cement Fineness on the Penetrability of CEM IV/B Based Cement Grouts". *Journal of Mineral and Material Science (JMMS)*, 3: 1032, Vol. 3, Issue 1, pp. 1-3. Published date: February 10, 2022. DOI:10.54026/JMMS/1032
- 17. **Christodoulou D.**, (2022). "The Effect of Water-to-Cement Ratio on the Penetrability of Cement Grouts: An Experimental Investigation". *Asian Journal of Engineering and Technology (AJET)*, ISSN: 2321–2462, Vol. 10, Issue 1, pp. 1-5. Published: 01-03-2022. DOI: https://doi.org/10.24203/ajet.v10i1.6890
- 18. **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.

- 19. **Christodoulou D.**, (2022). "Parameters Significantly Affect the Setting Times of Cement Suspensions for Soil Grouting A Mini Review". *Global Journal of Engineering Science and Research Management (GJESRM)*, ISSN 2349-4506, Vol. 9, Issue 4, pp. 1-5. Published: April 2022.
- 20. **Christodoulou D.**, (2022). "Factors Affecting Rheological Characteristics of Cement Suspension Grouts A Mini Review". *Research & Development in Material Science (RDMS) Journal*, ISSN: 2576-8840, Vol. 17, Issue 1, pp. 1919-1922. RDMS.000903. 2022. DOI: 10.31031/RDMS.2022.17.000903. Published: May 31, 2022.
- 21. 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)*, ISSN (Online): 2320-9364, ISSN (Print): 2320-9356, Vol. 10, Issue 5, pp. 01-08.
- 22. **Christodoulou D.**, (2022). "Evaluation of Cement Gradation Effect on the Injectability of Cement Suspensions for Soil Grouting A Review". *Austin Environmental Sciences*, ISSN: 2573-3605, Vol. 7, Issue 3: 1081. https://doi.org/10.26420/austinenvironsci.2022.1081
- 23. **Christodoulou D.**, (2022). "The Environmental Impact of Using Fine-Grained Cements as Injection Materials for Soil Grouting A Mini Review". *Aspects in Mining & Mineral Science (AMMS)*, ISSN: 2578-0255, Vol. 10, Issue 1, pp. 1100-1106. AMMS. 000727. 2022. Published: September 27, 2022. DOI: 10.31031/AMMS.2022.10.000727
- 24. **Christodoulou D.**, (2022). "A Brief View on the Effect of Permeability and Shrinkage Parameters on the Design of Optimum Cement Suspensions for Soil Grouting". *Research & Development in Material Science (RDMS) Journal*, ISSN: 2576-8840, Vol. 18, Issue 1, pp. 2044-2045. RDMS. 000930. 2022. Published: November 10, 2022. DOI: 10.31031/RDMS.2022.18.000930
- 25. **Christodoulou D.**, (2022). "Effect of Mixing Procedure and Injection Pressure on Injectability of Cement-Based Suspension Grouts". *Aspects in Mining & Mineral Science (AMMS)*, ISSN: 2578-0255, Vol. 10, Issue 3, pp. 1158-1160. AMMS. 000738. 2022. Published: December 15, 2022. DOI: 10.31031/AMMS.2022.10.000738
- 26. Kakavas K.V., Binas V.D., Kasiteropoulou D. and **Christodoulou D.N.**, (2022). "Valorization of greek Naxos emery in environmentally friendly applications". *IOP Conf. Series: Earth and Environmental Science*, 1123 (2022) 012002. doi:10.1088/1755-1315/1123/1/012002
- 27. **Christodoulou D.**, (2023). "The Effect of Cement Type and Granulometry on the Injectability of Suspension Grouts for Soil Improvement A Mini Review". *Juniper Online Journal Material Science (JOJMS)*, ISSN: 2575-856X, Vol. 7, Issue 3: 555713, pp. 1-5. Published: January 19, 2023. DOI: 10.19080/JOJMS.2023.07.555713
- 28. **Christodoulou D.**, (2023). "The Influence of Uniformity Coefficient and Degree of Soil Saturation on the Injectability of Cement Suspensions A Mini Review". *Environmental Analysis & Ecology Studies, ISSN: 2578-0336*, Vol. 10, Issue 3, pp. 1161-1163. Published: January 25, 2023. DOI: 10.31031/EAES.2023.10.000739
- 29. **Christodoulou D.** and Tsiatsiava F., (2023). "Soil Improvement with Cement Mortars and Different Water-to-Cement Ratios". *Environmental Analysis & Ecology Studies, ISSN: 2578-0336*, Vol. 10, Issue 4, pp. 1169-1171, 2023. Published: February 22, 2023. DOI: 10.31031/EAES.2023.10.000743

- 30. **Christodoulou D**., (2023). "Diffusion Infiltration of Miscible Cement Suspensions in Sandy Soils". *Annals of Reviews & Research*, Vol. 8, Issue 4: 555748, pp. 001-005, 2023. Published: March 01, 2023. DOI:10.19080/ARR.2023.08.555748
- 31. **Christodoulou D.** and Tsiatsiava F., (2023). "The Effect of Viscosity on the Injectability of Cement Suspensions for Soil Improvement". *Academic Journal of Engineering Studies*, Vol. 3, Issue 2, pp. 1-5, AES.000559.2023. Published: March 29, 2023.DOI: 10.31031/AES.2023.03.000559
- 32. **Christodoulou D.** and Tsiatsiava F., (2023). "Predictive Effectiveness Investigation of Groutability Ratios for Soil Improvement Using Cement Suspensions A Review". *Advances in Hydrology & Meteorology, ISSN: 2836-3655*, Vol. 1, Issue 3: 2022, pp. 01-04. AHM.MS.ID.000515. Published: April 19, 2023. DOI: 10.33552/AHM.2023.01.000515
- 33. **Christodoulou D.** and Tsiatsiava F., (2023). "Factors Affecting Cement Suspensions Strength for Soil Formations Improvement A Review". *Journal of Mineral and Material Science (JMMS), ISSN:* 2833-3616, Vol. 4, Issue 2, 2023. Published: April 19, 2023. DOI: 10.54026/JMMS/1058
- 34. **Christodoulou D.**, (2023). "Review of Analytical Methods for Evaluating the Injectability and Penetrability of Cement Suspensions in Soil Formations". *Academic Journal of Engineering Studies*, Vol. 3, Issue 3. AES.000561. 2023. Published: May 12, 2023. DOI: 10.31031/AES.2023.03.000561
- 35. **Christodoulou D.**, (2023). "Review of Experimental Arrangements for Soil Grouting with Cement Suspensions". *Aspects in Mining & Mineral Science (AMMS), ISSN: 2578-0255*, Vol. 11, Issue 3, pp. 1280-1280. AMMS. 000765. 2023. Published: May 31, 2023. DOI: 10.31031/AMMS.2023.11.000765
- 36. **Christodoulou D.,** (2023). "A Critical Approach to Targeting a Soil Improvement Research Grouting Program". *Aspects in Mining & Mineral Science (AMMS), ISSN: 2578-0255*, Vol. 12, Issue 1, pp. 1345-1348, AMMS. 000779. 2023. Published: November 14, 2023. DOI: 10.31031/AMMS.2023.12.000779
- 37. Alamanis N., Lokkas P., Xafoulis N., Chrysanidis T., Garani G., Papageorgiou G., **Christodoulou D.**, Paschalis E. and Zachos D., (2024). "Assessing Multiple Engineering Tasks Via Escape Room Game". *International Journal of Theoretical and Applied Mechanics, ISSN: 2367-8992*, Vol. 8, pp. 1-12.

In International scientific conferences

- Christodoulou D., Pliakas F., Diamantis I. and Kallioras A., (2004). "Groundwater study concerning the origin, sufficiency ensuring and quality of the Municipalities disposable water supply of the Fthiotida Prefecture – Management proposals". Proceedings of the 10th International G.S.G. Congress, Geological Society of Greece, Vol. 1, pp. 327-329, Thessaloniki, Greece, April 15-17, 2004.
- 2. Markou I.N., **Christodoulou D.** and Droudakis A., (2007). "Microfine Cements for Permeation Grouting". Presentation, *XIV European Conference on Soil Mechanics and Geotechnical Engineering (XIV ECSMGE), Technical Committee 17 Workshop on Ground Improvement of ISSMGE*, Madrid, Spain, September 24-27, 2007.
- 3. **Christodoulou D.N.**, Droudakis A.I., Pantazopoulos I.A., Markou I.N. and Atmatzidis D.K., (2009). "Groutability and Effectiveness of Microfine Cement Grouts". *Proceedings of the 17th*

- International Conference on Soil Mechanics and Geotechnical Engineering: The Academia and Practice of Geotechnical Engineering, Hamza et al. (Editors), IOS Press, Vol. 3, pp. 2232-2235, Alexandria Egypt, October 5-9, 2009. DOI:10.3233/978-1-60750-031-5-2232
- Markou I.N., Christodoulou D.N. and Atmatzidis D.K., (2012). "Effect of Sand Gradation on the Groutability of Cement Suspensions". Proceedings of the 4th International Conference on Grouting & Deep Mixing, Johnsen L.F. et al. (Editors), American Society of Civil Engineers (A.S.C.E.), Geotechnical Special Publication No. 228, Vol. 2, pp. 2003-2012, New Orleans, U.S.A., February 15-18, 2012. https://doi.org/10.1061/9780784412350.0175
- 5. Markou I.N., **Christodoulou D.N.** and Droudakis A.I., (2012). "Injections of Microfine Cement Grouts into Sand Columns for Penetrability and Effectiveness Evaluation". *Proceedings of the International Symposium of ISSMGE TC 211, Recent Research, Advances & Execution Aspects of Ground Improvement Works, Denies N. and Huybrechts N. (Editors), Vol. IV, pp. 291-301, Brussels, Belgium, May 31 & June 1, 2012.*
- 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". Proceedings of the International Conference on Raw Materials and Circular Economy, "Technological Developments and Future Challenges", Athens, Greece, September 5-9, 2021.
- 7. Alamanis N., Lokkas Ph., Xafoulis N., Papageorgiou G., **Christodoulou D.**, Paschalis E. and Zachos D., (2022). "The evaluation of engineering knowledge through an interactive escape room game". *Proceedings of the 9th International Conference on Energy, Sustainability and Climate Crisis*, Paphos, Cyprus, August 29 September 2, 2022.
- 8. Kakavas K.V., Binas V.D., Kasiteropoulou D. and **Christodoulou D.N.**, (2022). "Valorization of greek Naxos emery in environmentally friendly applications". *Proceedings of the 3rd International Conference on Environmental Design, ICED2022*, Athens, Greece, October 22-23, 2022.
- 9. **Christodoulou D.** and Spiliotis X., (2023). "Development of technical specifications/standards for secondary raw materials obtained from the valorization of Construction and Demolition Wastes and implementation of a small-scale project". International Conference on Construction and Demolition Waste Management, Action Plan Region of Thessaly, Action 3: Replacement of raw materials by recycled ones (products of C&D waste treatment plants) in public works, Sub-action 3.2, Larissa, Greece, February 9, 2023.

In national scientific conferences

- Christodoulou D.N., Markou I.N. and Droudakis A.I., (2010). "Injectability of Cement Grouts in Sandy Soils - Investigation and Evaluation". Proceedings of the 6th Panhellenic Conference on Geotechnical and Geoenvironmental Engineering, T.E.E. - Hellenic Scientific Society of Soil Mechanics and Geotechnical Engineering, Volume 3, pp. 379-386, Volos, Greece, September 29 -October 1, 2010.
- 2. Droudakis A.I., Markou I.N. and **Christodoulou D.N.**, (2010). "Parametric Investigation of the Effectiveness of Soil Impregnation Injections with Microfine Cement Suspensions". Proceedings of the 6th Panhellenic Conference on Geotechnical and Geoenvironmental Engineering, T.E.E. -

Hellenic Scientific Society of Soil Mechanics and Geotechnical Engineering, Volume 3, pp. 339-346, Volos, Greece, September 29 - October 1, 2010.

- 3. Markou I.N., **Christodoulou D.N.**, Petala E.S. and Atmatzidis D.K., (2014). "Investigation and Evaluation of the Injectability of Cement Suspensions in Sands of Different Particle Size Composition". Proceedings of the 7th Panhellenic Conference on Geotechnical Engineering, Hellenic Scientific Society of Soil Mechanics and Geotechnical Engineering, Athens, Greece, November 5-7, 2014.
- 4. Tallaros P., Dalos G., Ninikas K. and **Christodoulou D.**, (2023). "Assessment of the vulnerability of the Greek forest vegetation in relation to climate change". Proceedings of the 21st Panhellenic Forestry Conference, pp. 774-782, Loutra Edipsou, Evia, Greece, October 22-25, 2023.

Citations

(16.03.2025):

• Scopus: 195, h-index=7

• Google Scholar: 321, h-index=9