

CURRICULUM VITAE



PERSONAL INFORMATION

Name	Konstantinos A. Liolios
Address	Lefkou Pirgou 35 B, GR-67100, Xanthi, Greece
Tel.	cellular: +30 6937352234, home: +30 2541027996
e-mail	kliolios@env.duth.gr , kostisliolios@gmail.com
Nationality	Greek
Gender	Male
Date of birth	8 October 1984

EDUCATION/QUALIFICATIONS

2009-2014 **Ph.D. "Analysis of Hydrodynamic Behaviour and Transport and Removal of Pollutants in Porous Media: Investigation in Horizontal Subsurface Flow Constructed Wetlands"**

Ph.D. Grade: EXCELLENT

Subjects investigated: Groundwater flow and quality, microbiological degradation of pollutants constructed wetlands, MODFLOW computer family code, wastewater treatment, numerical modeling, estimation of parameters for optimum design, flow in porous media, climatic effects (rainfall and evapotranspiration).

Laboratory of Ecological Engineering and Technology,
Department of Environmental Engineering, School of Engineers,
Democritus University of Thrace, Xanthi, Greece
Supervisor: Professor Vassilios A. Tsihrintzis

Funded by the European Union (European Social Fund – ESF) and Greek national funds through the Operational Program ‘‘Education and Lifelong Learning’’ of the National Strategic Reference Framework (NSRF) – Research Funding Program: Heracleitus II. Investing in knowledge society through the European Social Fund

Examination Committee:

- 1) Professor Vassilios Tsihrintzis (Supervisor), Laboratory of Reclamation Works and Water Resources Management, School of Rural and Surveying Engineering, National Technical University of Athens (tsihrin@otenet.gr, tsihrin@central.ntua.gr, tsihrin@survey.ntua.gr)
- 2) Associate Professor Konstantinos Moutsopoulos, Laboratory of Ecological Engineering and Technology, Department of Environmental Engineering, Democritus University of Thrace (kmoutso@env.duth.gr)
- 3) Professor Diamantis Karamouzis, Laboratory of General and Agricultural Hydraulics and Land, School of Agriculture, Aristotle University of Thessaloniki (kardia@agro.auth.gr)
- 4) Professor Evangelos Voudrias, Laboratory of Solid and Hazardous Waste Management and Technology, Department of Environmental Engineering, Democritus University of Thrace (voudrias@env.duth.gr)
- 5) Associate Professor Georgios Sylaios, Laboratory of Ecological Engineering and Technology, Department of Environmental Engineering (President of Department), Democritus University of Thrace (gsylaios@env.duth.gr)
- 6) Assistant Professor Georgios Gkikas, Laboratory of Ecological Engineering and Technology, Department of Environmental Engineering, Democritus University of Thrace (ggkikas@env.duth.gr)
- 7) Assistant Professor Christos Akratos, Department of Environmental and Natural Resources Management, University of Patras (cakratos@upatras.gr)

2007-2008

Master in Science (M.Sc.)

M.Sc. Grade: 9.2/10 (EXCELLENT, top 5% of his class)

Master Thesis: "Numerical Simulation of Groundwater Flow and Evaluation of Performance in Horizontal Subsurface Flow Constructed Wetlands"

Grade of Master Thesis: 10/10 (EXCELLENT)

Department of Civil Engineering, School of Engineers,

Democritus University of Thrace, Xanthi, Greece

Expertise of Postgraduate Studies: "Hydraulic Engineering"

Specialization Direction: "Hydraulic Works and Environment"

Examination Committee:

- 1) Professor Vassilios Tsihrintzis (Supervisor), Laboratory of Reclamation Works and Water Resources Management, School of Rural and Surveying Engineering, National Technical University of Athens (tsihrin@otenet.gr, tsihrin@central.ntua.gr, tsihrin@survey.ntua.gr)
- 2) Associate Professor Konstantinos Moutsopoulos, Laboratory of Ecological Engineering and Technology, Department of Environmental Engineering, Democritus University of Thrace (kmoutso@env.duth.gr)

- 3) Associate Professor Panagiotis Angelidis, Laboratory of Hydraulics and Hydraulic Works, Department of Civil Engineering, Democritus University of Thrace (pangelid@civil.duth.gr)

2002-2007 **Diploma (B.Sc. & M.Sc.) of Environmental Engineer**
Diploma Grade: 8.57/10 (EXCELLENT, first of his class)
Diploma Thesis: "Simulation of Flow and Wastewater Treatment in Horizontal Subsurface Flow Constructed Wetlands"
Grade of Diploma Thesis: 10/10 (EXCELLENT)

Laboratory of Ecological Engineering and Technology,
Department of Environmental Engineering, School of Engineers
Democritus University of Thrace, Xanthi, Greece

Examination Committee:

- 1) Professor Vassilios Tsihrintzis (Supervisor), Laboratory of Reclamation Works and Water Resources Management, School of Rural and Surveying Engineering, National Technical University of Athens (tsihrin@otenet.gr, tsihrin@central.ntua.gr, tsihrin@survey.ntua.gr)
- 2) Associate Professor Konstantinos Moutsopoulos, Laboratory of Ecological Engineering and Technology, Department of Environmental Engineering, Democritus University of Thrace (kmoutso@env.duth.gr)
- 3) Associate Professor Georgios Hatzigeorgiou, School of Science and Technology, Hellenic Open University (hatzigeorgiou@eap.gr)

RESEARCH AND ACADEMIC/PROFESSIONAL STANDING

Publications

REFERRED PAPERS IN INTERNATIONAL JOURNALS

1. **Liolios K.**, Moutsopoulos K. and Tsihrintzis V. (2012). Modelling of flow and BOD fate in horizontal subsurface flow constructed wetlands. *Chemical Engineering Journal*, vol. 200-202, pp. 681-693.
2. **Liolios K.A.**, Moutsopoulos K.N. and Tsihrintzis V.A. (2014). Comparative modelling on HSF constructed wetland performance with and without evapotranspiration and rainfall. *Environmental Processes*, vol. 1(2), pp. 171-186.
3. **Liolios K.A.**, Moutsopoulos K.N. and Tsihrintzis V.A. (2014). Numerical simulation of phosphorus removal in horizontal subsurface flow constructed wetlands. *Desalination and Water Treatment* (Ahead-of-print) doi: 10.1080/19443994.2014.983550.
4. **Liolios K.**, Tsihrintzis V. and Radev C. (2011). A numerical investigation for the optimal contaminant inlet positions in horizontal subsurface flow wetlands. *Springer, Lecture Notes in Computer Science*, vol. 6046, pp.167-173.
5. **Liolios K.**, Tsihrintzis V., Moutsopoulos K., Georgiev I. and Georgiev K. (2012). A computational approach for remediation procedures in horizontal subsurface flow constructed wetlands. *Springer, Lecture Notes in Computer Science*, vol. 7116, pp. 299-306.

6. **Liolios K.**, Tsihrintzis V. and Radev C. (2010). Contaminant removal in horizontal wetlands: Investigation via numerical simulation of groundwater unconfined flow. *Journal of Theoretical and Applied Mechanics*, vol. 40(3), pp. 13-22.
7. **Liolios K.**, Radev S., Liolios A., Georgiev I. and Georgiev K. (2012). A linear complementarity numerical approach to the non-convex problem of structures environmentally damaged and strengthened by cable-bracings. *BIOMATH*, vol. 1(2), pp. 1-5.
8. **Liolios K.**, Georgiev I. and Liolios A. (2012). A numerical approach to the non-convex dynamic problem of pipeline-soil interaction under environmental effects. *Application of Mathematics in Technical and Natural Sciences, AIP Publishing*, vol. 1487(1), pp. 127-134.
9. Liolios A., **Liolios K.** and Michaltsos G. (2013). A numerical approach to the non-convex dynamic problem of steel pile-soil interaction under environmental and second-order geometric effects. *Springer, Lecture Notes in Applied and Computational Mechanics*, vol. 56, pp. 369-375.
10. **Liolios K.**, Tsihrintzis V., Moutsopoulos K. and Radev C. (2009). A numerical approach for confined groundwater flow and contaminant removal in horizontal wetlands. *Annual of the University of Architecture, Civil Engineering and Geodesy*, vol. XLIV, Fascicule V: Mechanics, pp. 143-151.
11. Liolios A., Chalioris K., Liolios A., Radev S. and **Liolios K.** (2012). A computational approach for the earthquake response of cable-braced reinforced concrete structures under environmental actions. *Springer, Lecture Notes in Computer Science*, vol. 7116, pp. 590-597.

REFERRED PAPERS IN CONFERENCE PROCEEDINGS

1. **Liolios K.A.**, Moutsopoulos K.N. and Tsihrintzis V.A. (2013). Effects of effluent recirculation on BOD removal in horizontal subsurface flow constructed wetlands – Numerical modeling. *Proceedings of 10th HSTAM International Congress on Mechanics*. Chania, Crete, Greece, 25 – 27 May 2013.
2. **Liolios K.A.**, Moutsopoulos K.N. and Tsihrintzis V.A. (2013). Numerical simulation of phosphorus removal in horizontal subsurface flow constructed wetlands. *Proceedings of the 4th International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE 2013) and SECOTOX Conference*, Eds.: Kungolos A., Aravossis K., Karagiannidis A., Samaras P. and Schramm K. - W. Mykonos island, Greece, 24-28 June 2013.
3. **Liolios K.A.**, Moutsopoulos K.N. and Tsihrintzis V.A. (2013). Effects of evapotranspiration and rainfall on HSF constructed wetland performance - Numerical simulation. *Proceedings of 8th International Conference of EWRA*, Eds.: Maia R., Brito A.G., Teixeira A.S., Valente J.T. and Pêgo J.P. Porto, Portugal, 26-29 June 2013, pp. 1035-1041.
4. **Liolios K.A.**, Moutsopoulos K.N. and Tsihrintzis V.A. (2013). Modeling of horizontal subsurface flow constructed wetlands: A review. *Proceedings of the 1st International Conference “Improving Efficiency of Water Systems in a Changing Natural and Financial Environment” (EWaS-MED)*. Thessaloniki, Greece, 11-13 April 2013.
5. **Liolios K.**, Moutsopoulos K., Tsihrintzis V. and Akratos C. (2010). Modelling of groundwater flow and contaminant removal in horizontal subsurface flow constructed wetlands. In: Christodoulou G.C. and Stamou A.I. (Eds), “*Environmental Hydraulics*”, Taylor and Francis Group, London, pp. 703-708.

6. **Liolios K.A.**, Moutsopoulos K.N., Tsihrintzis V.A. and Akratos C.S. (2008). A computational investigation of flow and contaminant removal in horizontal wetlands. *Proceedings of 6th GRACM International Congress on Computational Mechanics*. Thessaloniki, Greece, 19-21 June 2008, paper 1405.
7. **Liolios K.A.** and LIOLIOS A.A. (2008). A numerical approach for metal structures environmentally damaged and strengthened with cable-members. *Proceedings of the 4th International Conference on Structural Defects and Repair (CINPAR 2008)*. Aveiro, Portugal, 25-28 June 2008, paper 056.
8. **Liolios K.A.**, Moutsopoulos K.N., Tsihrintzis V.A. and Akratos C.S. (2008). Modelling and numerical investigation of groundwater flow and contaminant removal in horizontal wetlands. *Proceedings of The International Conference on Modelling and Simulation (MS' 08 JORDAN)*. Petra, Jordan, 18-20 November 2008, pp. 125-130.
9. **Liolios K.**, Tsihrintzis V. and Karamouzis D. (2009). A numerical treatment of groundwater flow and contaminant removal in horizontal wetlands. *Proceedings of 2nd International Congress of Serbian Society of Mechanics (IConSSM 2009)*. Palić (Subotica), Serbia, 1-5 June 2009, vol. B-04, pp. 1-10.
10. Liolios A., Boglou A. and **Liolios K.** (2009). An optimal control numerical approach for environmentally damaged and seismically interacting adjacent buildings. *Proceedings of WCEE-ECCE-TCEE Joint Conference, Earthquake and Tsunami*. 22-24 June 2009, Istanbul, Turkey.
11. **Liolios K.**, Tsihrintzis V., Moutsopoulos K. and Radev S. (2009). A numerical approach for confined groundwater flow and contaminant removal in horizontal wetlands. *Proceedings of 11th National Congress on Theoretical and Applied Mechanics (NCTAM)*. Borovets, Bulgaria, 2-5 September 2009.
12. **Liolios K.A.**, Moutsopoulos K.N., Tsihrintzis V.A. and Akratos C.S. (2008). Numerical investigation of inlet position effects to contaminant removal in horizontal subsurface flow constructed wetlands. *Proceedings of 9th HSTAM International Congress on Mechanics*. Limassol, Cyprus, 12-14 July 2010, pp. 81-88.
13. **Liolios K.A.**, Moutsopoulos K.N., Tsihrintzis V.A. and Akratos C.S. (2010). Modelling of remediation procedure in horizontal subsurface flow constructed wetlands. *Small and Decentralized Water and Wastewater Treatment Plants, 3rd Conference*. Skiathos island, Greece, 14-16 May 2010.
14. Panetsos P., Liolios A., **Liolios K.**, Theodoulidis N. and Spyridis P. (2012). Maintenance life-cycle costs for bridges of Egnatia motorway, Northern Greece, considering their seismic risk assessment. *Proceedings of 3rd International Symposium on Life-Cycle Civil Engineering, IALCCE 2012*. Vienna, Austria, 3-6 October 2012, pp. 294-303.

DOCTORAL DISSERTATION

Liolios K.A. (2014). Analysis of hydrodynamic behaviour and transport and removal of pollutants in porous media: Investigation in horizontal subsurface flow constructed wetlands. *Doctoral Dissertation*, Department of Environmental Engineering, School of Engineers, Democritus University of Thrace, Xanthi, Greece.

Supervisor: Professor Vassilios A. TSIHRINTZIS

WORK EXPERIENCE

January 2008 – December 2011

Scientific Consultant. Technical Office: Angelos P. Angeloudis, Dipl. Civil Engineering, Dagli 8, GR-65403, Kavala, Greece

Design of Hydraulic Projects, f.e.

- Environmental effects of projects
- Water network projects for small settlements
- Wastewater treatment for small settlements

July 2008 – November 2008

Trainee Environmental Engineering. Egnatia Motorway S.A., Design and Construction Company, 6th km Thessaloniki - Thermi, GR-57001, Thermi, Thessaloniki, Greece

Construction of Nestos river bridge - Environmental effects

December 2014 – August 2015

Member of a specialized scientific working group, Scientific Consultant. 732 Direction of Military Projects, Engineer Directorate, Hellenic Army General Staff, Xanthi, Greece

Implementation of technical researches, reports in environmental/hydraulic engineering and environmental impact studies

LANGUAGES

Mother tongue: **Greek**

FOREIGN LANGUAGES

- **English**

Reading Excellent

Writing Excellent

Speech Excellent

Certificates **2000: First Certificate in English (University of Cambridge)**

- **German**

- Reading Very Good

- Writing Very Good

- Speech Very Good

Certificates **2000: Zertifikat Deutsch (Goethe - Institut)**

COMPUTER SKILLS

- Very good use of computer code Visual MODFLOW
- Excellent use of Microsoft Office™ tools (word, excel, power point)
- Good command of FORTRAN programming
- Good command of AutoCAD

MEMBERSHIPS

- November 2007 – today: Member of Technical Chamber of Greece (T.E.E.)
- September 2012 – today: Member of the cultural association “F.E.X.” in Xanthi
- October 2012 – today: Member of Rotaract Club (Rotary International Youth Program)
- January 2014 – today: Member of Association Football Referees in Xanthi

ORGANIZATIONAL/MANAGERIAL SKILLS

- January 2013 – today: Treasurer of Rotaract Club “Lefkippos” in Xanthi

HONOURS AND AWARDS

SCHOLARSHIPS The Doctoral Dissertation was funded by the European Union (European Social Fund – ESF) and Greek national funds through the Operational Program “Education and Lifelong Learning” of the National Strategic Reference Framework (NSRF) – Research Funding Program: Heracleitus II. Investing in knowledge society through the European Social Fund