



# Nestoras Antoniou

Limassol, Cyprus, 99588958, antoniou.nestoras@ucy.ac.cy

---

Date of birth 11/03/1985 Nationality: Cypriot  
Place of birth Limassol

---

## PROFILE

A Postdoctoral researcher in Environmental Engineering, focusing on Computational Fluid Dynamics, simulation of urban microclimate, field and laboratory measurements, and sustainable development.

---

## EMPLOYMENT HISTORY

Mar 2024 — present	<b>Postdoctoral Researcher, University of Eastern Finland, School of Computing, Group of Applied Statistics and Statistical Machine Learning</b>	Joensuu
	<ul style="list-style-type: none"><li>Joined under the Yufe 4 Postdocs program co-funded by Horizon Europe's Marie Skłodowska-Curie Actions (MSCA fellow) in collaboration with the University of Cyprus</li></ul>	
Sept 2023 — present	<b>Postgraduate associate for teaching, Interdepartmental Postgraduate Programme "Energy Technologies and Sustainable Design"</b>	Nicosia
	<ul style="list-style-type: none"><li>Teaching the postgraduate course of "Advanced Project: Capstone Design Project"</li></ul>	
Winter semesters of 2015, 2017, 2018, 2019, 2020, 2022, 2023	<b>Postgraduate associate for teaching, University of Cyprus, Department of Civil and Environmental Engineering</b>	Nicosia
	<ul style="list-style-type: none"><li>Teaching the undergraduate course of "Experimental Fluid Mechanics"</li></ul>	
Jan 2020 — Nov 2023	<b>Research scientist, University of Cyprus, Department of Civil and Environmental Engineering</b>	Nicosia
	<ul style="list-style-type: none"><li>Performed research under the project "Urban Microclimate, and the Design of Sustainable Built Environments" supported by the research grant on Isles of Excellence</li><li>Publish results in scientific journals</li></ul>	
Mar 2015 — Feb 2017	<b>Research scientist, University of Eindhoven, Department of Built Environment</b>	Eindhoven
	<ul style="list-style-type: none"><li>Performed research in the areas of urban physics and wind engineering</li><li>Participated in international conferences and PhD schools with oral presentations and conference papers</li></ul>	
Winter semesters of 2013, 2014	<b>Teaching assistant, University of Cyprus, Department of Civil and Environmental Engineering</b>	Nicosia
	<ul style="list-style-type: none"><li>Assisted in educational processes for the undergraduate courses of Fluid Mechanics and Experimental Fluid Mechanics.</li></ul>	

---

## EDUCATION

Feb 2016 — May 2022	<b>PhD, University of Cyprus and University of Eindhoven (Joint degree)</b>	Nicosia
	PhD thesis: Numerical and experimental investigation of urban microclimate in a real compact heterogeneous urban area (Grade Honours)	
Sep 2011 — Sep 2012	<b>Msc in Energy and Environmental Performance of Buildings, University of Cardiff</b>	Cardiff
	MSc thesis: Evaluation of ventilation effectiveness using Computational Fluid Dynamics (Grade Merit)	
Sep 2005 — Sep 2010	<b>Diploma in Architectural Engineering, University of Patras</b>	Patras
	Diploma thesis: Passive cooling strategies and Bioclimatic design (Grade Merit)	

## Journal Publications

- Antoniou, N., Montazeri, H., Neophytou, M.K.-A., Blocken, B., (2019). *CFD simulation of urban microclimate: Validation using high-resolution field measurements*. Science of the Total Environment. 695, Art. Nr. 133743. Citations: (146)
- Antoniou, N., Montazeri, H., Wigo, H., Neophytou, M.K.-A., Blocken, B., Sandberg, M., (2017). *CFD and wind-tunnel analysis of outdoor ventilation in a real compact heterogeneous urban area: Evaluation using "air delay"*. Building and Environment 126, 355-372. Citations: (161)
- Antoniou, N., Montazeri, H., Blocken, B., Neophytou, M.K.-A. (2023). *On the impact of climate change on urban microclimate, thermal comfort, and human health: multiscale numerical simulations*. Building and Environment 260, Art. Nr. 111690

## Conference Proceedings

- Antoniou, N., Montazeri, H., Wigo, H., Neophytou, M.K.-A., Blocken, B. and Sandberg, M.: *Experimental and numerical evaluation of wind flow in a compact urban area: validation and sensitivity analysis*. In 8th International Colloquium on Bluff Body Aerodynamics and Applications (BBAA), Massachusetts, USA, June 2016
- Antoniou, N., Montazeri, H., Wigo, H., Neophytou, M.K.-A., Blocken, B.J.E. and Sandberg, M.: *Numerical and wind-tunnel evaluation of ventilation conditions in a real compact heterogeneous urban area*. In 7th European and African Conference on Wind Engineering (EACWE), Liege, Belgium, July 2017
- Antoniou, N., Montazeri, H., Neophytou, M.K.-A., Blocken, B.: *CFD simulations and field measurements of urban microclimate in a real compact heterogeneous urban area*. In International Conference on Urban Comfort and Environmental Quality (URBAN-CEQ), Genova, Italy, May 2017
- Antoniou, N., Montazeri, H., Neophytou, M.K.-A., Blocken, B.: *Urban microclimate analysis of a real compact urban area: CFD and on-site measurements*. In 10th International Conference on Urban Climate/ 14th Symposium on the Urban Environment (CUC), New York, USA, August 2018
- Antoniou, N., Montazeri, H., Neophytou, M.K.-A., Blocken, B.: *CFD Simulations and on-site measurements of urban microclimate in a real compact urban area*. In 6th International Conference on Renewable energy sources & energy efficiency (RESEE), Nicosia, Cyprus, October 2018
- Antoniou, N., Montazeri, H., Neophytou, M.K.-A., Blocken, B.: *Projections of climate change on microclimatic conditions of an urban area: CFD simulations and adaptation measures*. In 2nd World Congress on Climate Change (WCCC), Berlin, Germany, September 2019
- Antoniou, N., Montazeri, H., Neophytou, M.K.-A., Blocken, B.: *Projections of climate change on microclimatic conditions of an urban area: CFD simulations and adaptation measures*. In EMS Annual Meeting, Bratislava, Slovakia, 3 – 8 September 2023

## Skills and competences

**Computer Skills:** Environmental performance modeling software (Design Builder, Energy plus, TRNSYS, Radiance, HTB2, ADMS-URBAN, Open Studio), CFD software (ANSYS Fluent, CFD WinAir), Mesh generator software (Gambit, ANSYS meshing, Fluent meshing, ICEM CFD), CAD software (Autocad, Rhino), Data post-processing (Tecplot, Paraview), 3D Modeling (3D studio Max, Form Z, Sketchup, Autocad Architecture), Image editing (Photoshop, Illustrator), Project management software (Primavera), Programming (R studio, Python, Mathematica, MATLAB).

**Personal skills:** Ability to work independently and with self-motivation. Applied research - Participated in several industrial projects for international companies, such as the impact of rain on high-rise buildings and pedestrian wind comfort assessments. Problem Solving - Capable of creating solutions, clear thinking, and performing under pressure in anxious environments.

## Accreditations

Member of the Technical Chamber of Cyprus (ETEK) in the specialization of Architectural Engineers following one year's certified work experience.

---

<b>LANGUAGES</b>	<b>Greek</b>	Native speaker	<b>English</b>	Highly proficient
------------------	--------------	----------------	----------------	-------------------

---

<b>HOBBIES</b>	Competent crew at open water sailing from Official Patras sailing club. Crew in sailing racings achieving two 1st place positions.			
	Holder of Level 1 AIDA free diving diploma			

---

<b>REFERENCES</b>	Available upon request			
-------------------	------------------------	--	--	--

---