

Stamatios Zoras BSc, MSc, PhD(Eng)

Associate Professor of Energy Efficiency and Design of Buildings and Settlements

Laboratory of Energy Efficiency and Design of Buildings and Settlements

Scientific Expertise

- Energy design simulation of buildings and settlements (TAS, AMBIENS, ECOTECT, ANSYS-CFX, FLUENT, Design Builder)
- Bioclimatic Design and simulation
- Passive design and energy harvesting
- Arithmetic heat transfer algorithms in buildings
- Environmental analysis of urban systems
- Atmospheric physics and meteorology
- Atmospheric pollution dispersion simulation
- Dissemination of environmental epidemic indices to the public
- Renewable technologies and applications in buildings
- Energy transition

Teaching subjects

- 1. Building and Atmospheric Physics
- 2. Building Energy Efficiency and Design
- 3. Atmospheric Pollutant Dispersion Simulation
- 4. Bioclimatic Design and Simulation

Projects

- 1. Microclimate Research Study for the Bioclimatic Reformation of the Open Center in Polycentro, Ptolemaida, Eordaia Municipality.
- 2. Measurements and Simulation in the Assessment of the Bioclimatic Reformation in the Connection Streets between Archeological Monuments in the City of Arta (Parigoritria Castle), Arta Municipality.
- 3. FP7-311913: Precision technologies to improve irrigation management and increase water productivity in major water-demanding crops in Europe, 2012-2015.
- 4. Greece-China: Metropolitan Centers Effects in Regional Atmospheric Pollution and CLimate and Development of a General Software PAckage for the Visualization Satelite Data. 2012-2015, GSRT.
- 5. Organization of Central System in the Management of air quality in the area of west Macedonia, Environmental Center, Ptolemaida, Greece.

Publications

- 1. Zoras, S., Tsermentselis, A., Kosmopoulos, P., Dimoudi, A. Evaluation of the application of cool materials in urban spaces: A case study in the center of Florina, Sustainable Cities and Society, 13 223-229, (2014)
- 2. C. Georgakis, S. Zoras, M. Santamouris, Studying the effect of 'cool' coatings in street urban canyons and its potential as a heat island mitigation technique, Sustainable Cities and Society, 13 20-31, (2014)
- 3. S. Zoras, Urban Environment Thermal Improvement by the Bioclimatic Simulation of a Populated Open Urban Space in Greece, International Journal of Ambient Energy, Article in Press 2013.
- 4. Zoras, S., Dimoudi, A., Kosmopoulos, P., Analysis of conductive temperature variation due to multi-room underground interaction, Energy and Buildings, 55 433-438, (2012).
- 5. A. Kantzioura, P. Kosmopoulos, S. Zoras. Urban surface temperature and microclimate measurements in Thessaloniki, 44 63–72, (2012), Energy and Buildings.
- 6. S. Zoras, V. Evagelopoulos, J. Pytharoulis, G. Kallos, The development and validation of a novel based combination operational air quality forecasting system in Greece, 106(3-4), 127-133, (2010), Meteorology and Atmospheric Physics.
- 7. S. Zoras, A review of building earth-contact heat transfer, Advances in Building Energy Research, 3, 289-314, (2009), INVITED PAPER.
- 8. S. Zoras, A. G. Triantafyllou, V. Evagelopoulos, Aspects of year-long DOAS and ground station measurements in an urban street canyon nearby industrial pollution sources, Atmospheric Environment, 42, 4293-4303 (2008).

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