

Short CV

Nikolaos Maniotis is a Physicist, holder of a Master's Degree in Nanotechnologies and Nanosciences and a PhD from the Department of Physics of the Aristotle University of Thessaloniki. During the academic year 2022-2023 he is teaching the course of computational hydraulics in the Department of Civil Engineering of the University of Thessaly, as an academic scholar, while during the academic year 2021-2022 he taught the course of partial differential equations in the same Department as a contracted teacher. At the same time, he works as a postdoctoral researcher at the MagnaCharta (Magnetic Nanostructures Characterization: Technology and Applications) laboratory based at the Center for Interdisciplinary Research and Innovation (CIRI). His research focuses on the use of numerical methods in micro-magnetism to estimate the physical properties (electrical, magnetic and thermal) of magnetic nanoparticles as well as the application of the latter in biomedical and environmental engineering. Also, his research interests include multi-scale simulations with the aim of: a) the study and extraction of fluid properties with computational simulation techniques at various scales b) the calculations of electromagnetic fields of variable amplitude and frequency produced by high-frequency devices (RF, Microwave) and low (LF) frequencies and c) the study of temperature increase in biological tissues and other materials, due to absorption of electromagnetic radiation. The results of his research have so far been published in 16 scientific papers in peer-reviewed international journals, while part of his work has already been included in 2 chapters of collective volumes.