DEPARTMENT OF ENVIRONMENTAL ENGINEERING – UNIVERSITY OF WESTERN MACEDONIA

Name and Surname:	Panagiotis Philippos Natsiavas	
Specialization/Position:	Mechanical Engineer – Postdoctoral Researcher CERTH/CPERI (lab: Process Systems Design and Implementation)	
Brief CV:	Dr. Panagiotis S. Natsiavas received his bachelor degree in Mechanical Engineering from the Aristotle University of Thessaloniki (AUTH) in June 2012. After graduating, he continued his studies in the United States of America (USA), where he received a Master's degree in Mechanical Engineering from the California Institute of Technology (CALTECH) in June 2013. At the same university he completed his doctoral dissertation on "Stability of Electrode-Electrolyte Interfaces during Charging in Lithium Batteries" and was awarded a Ph.D. in the same department in June 2016. He then worked as a postdoctoral researcher on developing a computational model to explain experimental observation of shock wave propagation in glass under intense loading conditions at the Massachusetts Institute of Technology (MIT) for one year. Since January 2018, he is working as a post-doctoral researcher at the Chemical Process and Energy Resources Institute (CPERI) in Centre for Research and Technology Hellas (CERTH) located in Thessaloniki. His scientific interests lie in a) modeling and simulation of integrated process systems for carbon dioxide capture, b) development, design and control of systems, c) improvement and techno-economic analysis of processes, and d) high performance computing.	
Publications 2013-2018 ***(up to 5)***	1. P.P. Natsiavas, K. Weinberg, D. Rosato, M. Ortiz, *"Effect of Prestress on the Stability of Electrode-Electrolyte Interfaces during Charging in Lithium Batteries"*, *Journal of the Mechanics and Physics of Solids, Vol. 95, pp. 92 – 111, 2016* 2. Kerstin Weinberg, Panagiotis Natsiavas, Marek Werner, Michael Ortiz, *"Stability of the Solid-Electrolyte Interface in Solid-Lithium Batteries"*, 9th European Solid Mechanics Conference (ESMC), Madrid, Spain, 2015 3. Kerstin Weinberg, Panagiotis Natsiavas, Michael Ortiz, *"Innovative numerical approaches for multi-physics problems"*, VII European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS Congress), Crete Island, Greece, 2016 4. Panagiotis Natsiavas, Raul Radovitzky, *"Direct measurement and modeling of glass under shock loading"*, Society of Engineering Science 53rd Annual Technical Meeting, University of Maryland, USA, 2016 5. D. Veysset, P.P. Natsiavas, K.A. Nelson, R. Radovitzky, *"Non-linear propagation of focusing surface acoustic waves on glass"*, Physical Review Letters (in preparation)	
Research Projects 2013-2018 ***(up to 5)***	1. "Development and Experimental Assessment of Electrochemical Wastewater Treatment Plant of a Battery Industry for Recovery of Precious Ions for Re-Use in the Production and Disposal of Water for Agricultural Use" – «ELECTRACCUM», CERTH/CPERI 2. "Enhancing Programmability and boosting Perfomance Portability for Exascale Computing Systems" – «EXA2PRO», CERTH/CPERI 3. "Direct Measurement and Modeling of Glass under Shock Loading" – Office of Naval Research, Massachusetts Institute of Technology 4. "Effect of prestress on the stability of electrode – electrolyte interfaces during charging in lithium batteries", Robert Bosch GmbH through the Bosch Energy Research Network (BERN) Project no.: 07-15-CS13, California Institute of Technology	
Distinctions:	1. Outstanding teaching performance award, Caltech 2015 (3 recipients) 2. National Scholarship Fellow (highest grade in class), 5 consecutive years 2007 – 2012	