



Prof. Dr-Ing. Angelos Filippatos

University of Patras

Prof. Dr.-Ing. Angelos Filippatos is an Assistant Professor on Design of Machine Elements, Machines and Mechanical Systems at the Department of Mechanical Engineering and Aeronautics of the University of Patras in Greece. In 2023, Prof. Filippatos founded the IDEAS Group at Uni. Patras, dealing with Intelligent Design and Sustainable Engineering topics on the sectors of aviation and maritime. At University of Patras, he teaches the courses Mechanical Measurements, Elements of Machine Design I & II, Design of Mechanical Systems, and Applications of Artificial Intelligence.

Between 2020 to 2022, he founded and led the research group "Hierarchical Topologies - Intelligent Systems with material-inherent functions" at the Dresden Center for Intelligent Materials (DCIM) of the Technische Universität TU Dresden. Between 2011-2019, he was a research engineer at the Institute of Lightweight Engineering and Polymer Technology of TU Dresden, completing his PhD and Post-Doc, on composite rotors and function integration, respectively. He is a Dipl.-Ing. from the National Technical University of Athens - School of Mechanical Engineering, where he graduated in 2010.

His scientific expertise is on the design and testing of multi-material structures under complex loading conditions, with a special focus on sustainable design and engineering. The main emphasis of his research is to synergize multi-material engineering, parametric simulations and machine learning to discover and implement novel designs on component and system level, by exploiting new technologies. Dr. Filippatos has developed a solid background regarding the development and testing of multi-material structures and their architectural representation through a systems engineering approach. As a result, he is currently committed with focus on the cross-level, inter-disciplinary experimental-numerical investigation of holistic Sustainability and Engineering through data-driven methods and artificial intelligence.

Address: University Campus, Rio Patra, Greece

Tel: +30 2610 969426

Email: angelos.filippatos@upatras.gr

Website: <https://www.ideas.upatras.gr/>