



I am George Balan, a second-year Ph.D. student in Electrical Engineering at the Faculty of Electrical Engineering, Energy, and Applied Informatics, Technical University of Gheorghe Asachi - Iasi, Romania. My research interests focus on digital twin technology in electrical engineering, particularly applications in automotive and predictive maintenance. I am passionate about combining real-time data with digital models to optimize system performance and identify faults in electrical systems. Additionally, I have presented my work at several national conferences, and my goal is to contribute to advancing digital twins in electrical engineering. I am also engaged in interdisciplinary projects that merge data science and electrical engineering to improve efficiency and reliability through the implementation of digital twin

approaches.