

DigiWind is an innovative EU co-funded project under the Digital Europe Programme (DEP), designed to drive Europe's transition to a digital and sustainable future. Through its innovative Specialised Education Programmes (SEPs), **DigiWind provides advanced education to Science, Technology, Engineering, and Math (STEM) professionals in the renewable energy sector.** Our goal is to equip the workforce with the digital expertise needed for the evolving landscape of wind energy and emerging technologies.

DigiWind offers two distinct pathways for education: Master of Science (M.Sc.) degrees and self-paced online Master's programmes. Whether you're looking to pursue a full-time academic journey or upskill as a professional, DigiWind's flexible programmes in High-Performance Computing (HPC), Artificial Intelligence (AI), Cybersecurity, and more, are designed to help you succeed. Join a network of learners and educators committed to shaping the future of renewable energy - explore the possibilities that DigiWind offers and become a part of the green revolution!

## M.Sc. and Master Courses



Technical University of Denmark



Gdańsk University of Technology

## M.Sc. Scientific Programming for Wind Energy

LEVEL: INTERMEDIATE

The M.Sc. Scientific Programming for Wind Energy prepares students to tackle complex engineering challenges through advanced computational skills. Focused on Python programming, data manipulation, and software development, the course equips students with expertise in scientific libraries (numpy, scipy, PyWake, TOPFARM), version control, and high-performance computing. Through hands-on coding projects, peer reviews, and GitLab collaboration, students learn to develop, test, and optimize software solutions for wind energy applications. Graduates will be proficient in scientific computation, data visualization, and algorithm development, making them highly valuable in research, industry, and innovation-driven roles.

## Master High Performance Computing in Wind Energy

LEVEL: ADVANCED

The Master High-Performance Computing in Wind Energy equips engineering students with essential HPC skills to tackle complex computational challenges in wind and energy systems. Through a problem-based learning approach, students will master parallelization, code optimization, CPU computing, and HPC workflows using Python. The hybrid course (online/on-campus) offers hands-on experience with HPC clusters, memory management, and performance analysis, enabling students to develop efficient, scalable solutions. While case studies focus on wind energy, prior knowledge in the field is not required—only a solid programming background.

## M.Sc. Smart Renewable Energy Engineering

LEVEL: ADVANCED

The M.Sc. Smart Renewable Energy Engineering equips engineers and technical leaders with cutting-edge skills to drive the future of renewable energy. Combining AI, Big Data, Digital Twins, HPC, and IoT with advanced wind energy expertise, the programme focuses on smart grids, energy storage, and sustainability. Through a hybrid learning approach, hands-on laboratory sessions, and industry collaboration, students gain practical experience in optimizing renewable energy systems. Graduates are prepared for careers in wind turbine manufacturing, wind farm operations, engineering consultancy, and regulatory compliance, shaping the transition to a smarter, greener energy future.



Find out more about these courses here!























