

SuperAIRE

Prof. Xiaowei Zhao
University of Warwick



SuperAIRE

Aims



Foster

Foster seamless collaboration between academia, industry, and policymakers.

Pioneer

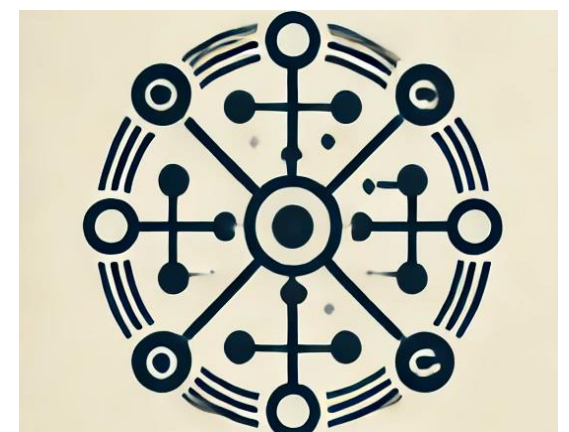
Pioneer AI-based advancements in energy generation, storage, transmission, distribution, demand side management

Lead

Lead the transformation of renewable energy with AI-driven innovation.

Accelerate

Accelerate the transition to a clean energy future with cutting-edge AI.



SuperAIRE

Core Team



Prof Xiaowei Zhao,
University of Warwick

Main expertise: Control theory and machine learning with applications in offshore renewable energy systems, smart grids, and autonomous systems.



Prof Sara Walker,
University of Birmingham

Main expertise: Whole energy systems and systems transformation, energy efficiency, and renewable energy.

Prof Yulong Ding,
University of Birmingham

Main expertise: Energy storage, including liquid air energy storage technology, thermal energy storage, passively cooled container technology, etc.



Prof Philip Torr,
University of Oxford

Main expertise: Machine learning, computer vision, and robotics.





- **Across industry, academia, and policy-making**
 - 26 industrial partners
 - Five leading R&I organisations
 - Two policymakers
- **Across sectors**
 - **Energy sector: Vestas, BP, GE Vernova, National Energy System Operator (NESO), GWEC, Energy Systems Catapult, ORE Catapult, ScottishPower Energy Networks, Schneider Electric, Kinewell Energy, Vital Energi, HI-ACT Hub, Supergen ORE Hub, Supergen Energy Networks Hub, and SuperGen Energy Storage Network+.**
 - **AI, data, and software sector: Met office, Meta (previously Facebook), The Alan Turing Institute, Five AI, Mathworks, Schlumberger, ETAP, OPAL-RT, Embotech, Nortech, and EDRmedeso.**
 - **Consulting: DNV, PA Consulting, Mott MacDonald, Arup and Bays Consulting.**

SuperAIRE

Research Themes (RTs)

- RT1: Robust and trustworthy AI
- RT2: Prediction and forecasting across scales
- RT3: AI-powered digital twins
- RT4: Intelligent control and management
- RT5: Smart integration
- RT6: Intelligent robotics and autonomous systems in resource assessments, operations, and maintenance

