# Heriot-Watt University's ECO-AI Project Aims to Revolutionize Carbon Capture and Storage Systems



Researchers at Heriot-Watt University in Edinburgh have initiated a project using artificial intelligence (AI) to significantly reduce the time and cost of designing carbon capture and storage (CCS) systems. The project, named ECO-AI and funded by UK Research and Innovation with a grant of £2.5 million, aims to cut down the CCS modelling time from 100 days to just 24 hours. This initiative is part of the broader efforts by the university's global research institute for net zero, iNetZ+, to help industries such as steel, chemicals, and cement reduce their carbon emissions.

The ECO-AI project is being conducted in collaboration with Imperial College London and focuses on developing energy-efficient solvents and advanced algorithms for CO2 capture and secure geological storage. This research not only seeks to enhance the feasibility of CCS as an economically viable option for hard-to-decarbonize sectors but also endeavors to establish a framework that future researchers and policymakers can utilize to support the UK's target of achieving net zero by 2050.

Professor Ahmed H Elsheikh, leading the data and artificial intelligence research theme at iNetZ+, highlighted the project’s potential impact on refining CCS applications without excessive energy use or the need for costly exploratory procedures.