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University of Kent

Sustainability in Computing

Climate and computing workshop

Dr Dominic Orchard

Software is everywhere, underpinning the fabric of society: our transport, energy, financial, and social systems. Developing a sustainability mindset in our computer scientists is therefore key to helping them leverage their skills to support the transition to net zero. Software is also at the heart of climate modelling, monitoring and forecasting, where computational models comprise large, complex numerical simulations. Thus there is a pressing need for multi-disciplinary work to support climate science and solutions. Computational modelling is key to climate science. But models are becoming increasingly complex as we seek to understand our world in more depth and model it at higher fidelity

Within the School of Computing, Dr Dominic Orchard, has been running an annual focused workshop on the role computer science has to play in addressing the climate crisis and how better software leads to better climate research. This draws on his work in the Programming Languages and Systems for Science laboratory at Kent and his co-directorship of the Institute of Computing for Climate Science at the University of Cambridge.

During the workshop students hear from a member of the University's Sustainability team about the global challenges of climate change in order to provide the context to exploring the role of computer science in contributing to solutions.

The **Institute of Computing for Climate Science** studies and supports the role of software engineering, computer science, artificial intelligence, and data science within climate science.