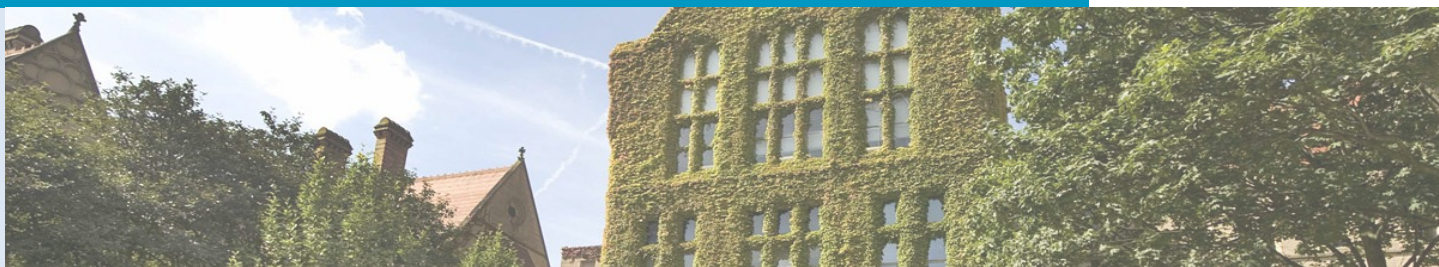


Ferranti Building PV System



The Project

The Ferranti building, part of the School of Electrical and Electronic Engineering, hosts an exciting experiment which looks at the integration of domestic photovoltaic (PV) systems into energy networks. The project, which is led by Dr Luis Nando Ochoa, Senior Lecturer in Smart Distribution Networks, is a collaboration between researchers, Estates and Electricity North West Limited, who operate and maintain the electricity distribution network in the North West.

Three PV arrays have been set up on the roof of the building at different angles, to simulate different domestic settings. Data about their performance is collected by monitoring equipment within the building. The aim is to study the long-term efficiency and systemic integration of domestic set-ups, which often behave differently to high-quality research technologies, but which are difficult to monitor in real life.



South-west array on roof of Ferranti building. Image: Nando Ochoa

Outcomes

The PV project illustrates the synergies between Universities and businesses, and the exciting possibilities of integrating research with applied sustainability improvements. It provides much needed research on domestic energy generation and its integration into existing systems, which can be applied in future network planning. The arrays are also on-grid, and contribute up to 15% of the required electricity of the Ferranti building. This success has been recognised, and the requirements for the experiment have been considered in the design for the new Manchester Engineering Campus Development, ensuring its long-term continuation.



Monitoring set-up
Image: Nando Ochoa

Key Contact

For more information, please contact Dr Luis (Nando) Ochoa, Senior Lecturer in Smart Distribution Networks: luis.ochoa@manchester.ac.uk