

Assoc Professor. Ariel Liebman
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Biography

Ariel is Director of the Monash Energy Institute and also leads the university's Smart Energy System's research program. Additionally, a Director of the Monash Grid Innovation Hub, Ariel leads Monash's electricity grid related Digital Energy initiatives. He brings together researchers from across disciplines such as AI and Electrical Engineering.

Ariel is an energy specialist with more than 20 years' experience, including NEM price forecasting, investment planning, electricity network monopoly regulation, and energy portfolio risk management.

Ariel is co-architect of the Microgrid/Net Zero Initiative and lead researcher in the \$3 mil ARENA funded Smart Energy City. The Clayton campus infrastructure includes 2MW of solar panels, 20 buildings, electric vehicle charging stations and redT 1MWh storage. Ariel's research is cross-disciplinary including applications of machine learning data analytics to develop distributed energy market platforms, the integration of new optimisation techniques with grid operation and planning methods.

This results in faster decision support tools for operation and planning of energy systems at distribution and transmission level. In the energy transition this is becoming critical if we are to manage the explosive complexity in operation and planning of both the distribution and transmission grid and new low carbon continent-wide power systems.

Ariel led the Australia Indonesia Centre Energy Cluster and recently led a project in collaboration with Indonesian and European NGO's showing that a shift to renewables can cost Indonesia no more than their current coal based plans while reaching 50% renewables by 2030

Ariel holds a PhD in Quantum Physics from the University of Queensland.

Qualifications

Quantum Optics, Doctor of Philosophy, University of Queensland
Award Date: 26 Mar 1996

Laser Optical Physics, Master of Science, University of Auckland
Award Date: 1 May 1991

Computer Science, Bachelor of Science, University of Auckland
Award Date: 1 May 1990