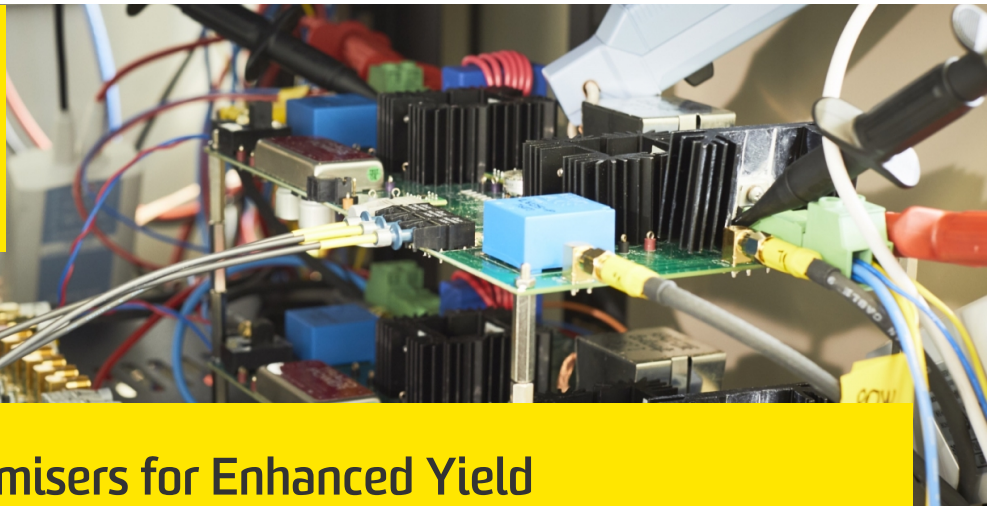




**UNSW**  
SYDNEY



## Submodule PV Optimisers for Enhanced Yield

**Developing power electronic-based optimiser circuits that maximise the energy output, in real time, from photovoltaic panels that have become shaded, hot or are deteriorating. Doing so attacks the costs and benefits of PV systems from two significant directions, improves the yield and enhances the return on investment.**

### Competitive advantage

- Use of state-of-the-art high power-density circuitry in the design of lower cost optimiser circuits
- Demonstrated ability to improve the yield of new and existing installations by up to 30%

### Impact

- Improving the energy yield from sub-optimally located and positioned PV panels
- Lowering the costs by focusing on sub-module and individual tiles
- Reducing the power rating of the optimiser power electronics

### Successful outcomes

- Differential power processor prototype has been verified by PV simulators

### Capabilities and facilities

- High-quality test and measurement systems for assessment and verification of circuitry
- Environmental chamber testing for accelerated life assessment
- Advanced power electronics converter testing platform
- Hardware-in-the-loop simulation platform
- PV simulators

### Our partners

- Hi-Vis Group
- Hyperion

### More Information

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