

Operation and Protection of DC Microgrids

The use of DC microgrids is a potential growth area with a range of platforms including vehicles, aerospace, marine and rail. There is a need for developing tools, techniques and models to back up serious experimental work on hardware prototypes, and is working on protection devices and systems.

Competitive advantage

• Prototype High efficiency DC-DC hardware and converter technology to enhance microgrid performance.

Impact

• The techniques and technologies enhance the efficiency, performance and protection of DC microgrids.

Successful outcomes

- Tyree microgrid project
- Marine platforms
- Road-side signage
- Water treatment plants

Capabilities and facilities

- Access to state-of-the-art experimental facilities including:
- 10kVA experimental DC microgrid with diverse set of loads and generators
- 18-rack RTDS capable of modelling microgrid hardware
- OPAL-RT real-time simulator

Our partners

- Hi-Vis Group
- A. W. Tyree Foundation
- ARENA

More Information

Professor John Fletcher

School of Electrical Engineering and Telecommunications

T: +61 (0) 2 9385 6007 E: john.fletcher@unsw.edu.au

UNSW Knowledge Exchange

knowledge.exchange@unsw.edu.au

www.capabilities.unsw.edu.au

+61(2)93855008