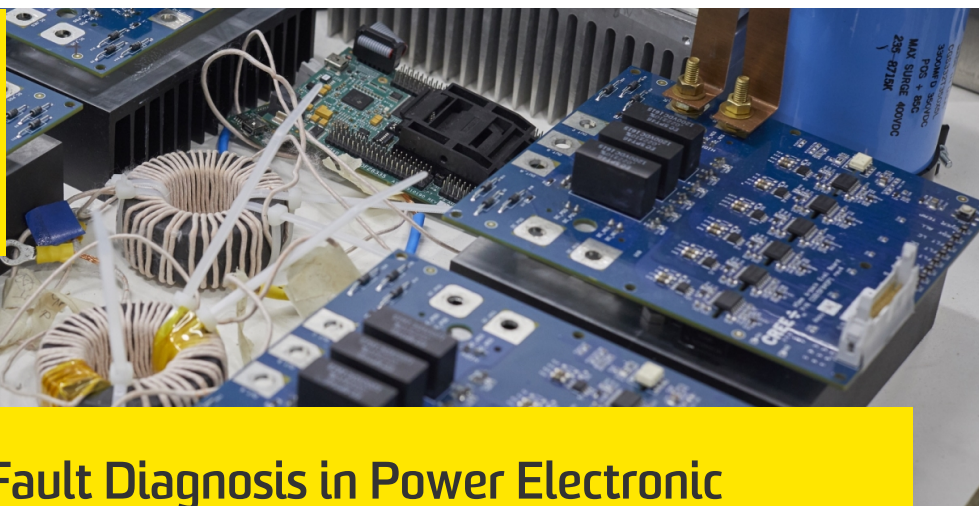




UNSW
SYDNEY



Methodologies for Fault Diagnosis in Power Electronic Systems Operating in Harsh Environments

Power electronic systems operating in harsh environments, such as mines, are exposed to extreme temperatures, dust, moisture, hazardous environments, dynamic power loads, cyclic and mobile operation. Methodologies have been developed to diagnose and rectify these faults as quickly as possible in order to minimise potential revenue losses.

Competitive advantage

- Development of leading troubleshooting procedures for fault diagnosis
- Innovative, self-aware diagnostic systems for safety-critical drives

Impact

- Improving the reliability of equipment that operates in hazardous environments

Successful applications

- Fault diagnosis methods for power electronic systems used in the mining industry

Capabilities and facilities

- Power electronics laboratory with state-of-the-art equipment
- PV simulators
- Hardware testing capability up to 50kVA, 1kV, 400A
- Arbin battery and supercapacitor tester with environmental chamber

Our partners

- Austindo

More Information

Professor John Fletcher, Dr Branislav Hredzak

School of Electrical Engineering and Telecommunications

T: +61 (0) 2 9385 4895

E: j.fletcher@unsw.edu.au

UNSW Knowledge Exchange

knowledge.exchange@unsw.edu.au

www.capabilities.unsw.edu.au

+61(2) 9385 5008