

GRID FORMING INVERTERS

A Hands-On Short Course

In this course, you will learn about the basics of grid forming inverters, their modelling, control and applications in PSCAD. You will also get familiar with the most recent trends in the grid-forming concept and how it will be shaping the future power systems.

Course Overview

As part of our **Grid Integration of Renewables** short course series, this course primarily focuses on grid forming inverters (GFMI) that have been hailed as a game changer across the energy industry.

You will learn the fundamentals of grid-forming control topologies and their modelling. You will also learn about GFMI capabilities and applications, and be able to analyse performance under various grid settings.

We will also have an optional 4-hour online PSCAD workshop intended for beginners that aims to teach basic techniques that will be useful throughout the course.

Industry Insights

The course reflects the latest energy-sector developments and features a panel discussion and expert talks from grid operators, consultants, and researchers.

Learning Outcomes

- Fundamentals of grid-forming vs grid-following inverters
- Control techniques: Droop control, Power Synchronization, VSG, CGVSG
- PSCAD simulations for performance comparison under different grid conditions and operating scenarios
- Stability analysis: Small-signal, transient, and impedance-based methods
- Current limitation techniques and protection-related capabilities for GFMI
- Industry insights, pilot projects, case studies, research roadmap, panel discussion, and Q&A

For more information, please visit our website, [here](#).

Register NOW here!

Details

Course Date:
15–18 June 2026

Delivery:
In-person (Caulfield) or Online

Course Fee:
A\$4,675 In-person; A\$4207.50 Online

Optional PSCAD Workshop:
14 June, 1:00–5:00 pm
For participants with no or limited PSCAD knowledge

Discounts

Early Bird Discount: Enjoy 15% discount until May 01, 2025. No discount code is required.

Online Course: Use the discount code *GFMOnline* to access the online price.

Monash Uni. Alumni/Students: Receive 30% discount after early bird deadline using the codes *MONASH30* (in-person) and *Online+30* (online).

