



Generator Protection Self-Training Module

Overview

Generator protection is important for power system stability and reliability. Protection systems prevent damage to the power system equipment, avoiding high maintenance and replacement costs and revenue loss.

Professionals working in the electrical power industry or are new to generator protection will gain knowledge from seasoned engineers through the Generator Protection Self-Training Module. The project aims to help students to gain skills in generator operation, control, and protection.

**Protection
and Control
Interest Group**

**Published:
June 2023**

How to use this research

The report consists of 10 submodules with descriptive and explanatory text, examples, diagrams, and photos and can be used to:

- Explore current and upcoming protection technology and control strategies and educational methods.
- Allow young professionals to work through the structured material at their own pace
- Provide hands-on exercises at the end of each model and help understand the primary components of electric power generation via quizzes at the end of each submodule

Key questions Addressed

- What are the fundamental concepts in electric power generation?
- What is the recommended practice for operating generators?
- What are the critical components of generators that require protection?
- What common protection elements and underlying principles are used in the protection functions?
- What are generator protection functions for electrical system disturbances and faults conditions?
- How to connect the relays and typical settings used in the industry?
- How to apply the coordination of the generator protection with voltage regulation?

About CEATI Research

CEATI facilitates the planning and implementation of collaborative R&D projects among its electric utility members. This approach enables members to solve shared challenges and maximize their return on investment.

Get the Full CEATI Report

CEATI Protection and Control group members can access the report [here](#).

If you're interested in joining the Protection and Control group to access the full report as well as additional research, expert guidance, networking events, and more contact us today at <https://ceati.com/membership>