

# RELAY PROTECTION TRAINER



## Overview

This trainer includes electromechanical relay protections and microprocessor-based relay protection. The Electromechanical Relay Protection is a combination of different types of electromechanical relays and a DC generator. This trainer allows to concentrate on different protection circuits that are used in different points of real power network. It allows to investigate the relays as separate equipment, as well as their use in advanced protection circuits with and without the generator.

The microprocessor-based relay is implemented on myRIO. It allows to investigate the logic behind every protection as well as adding new types of custom algorithms using graphical programming language LabVIEW.

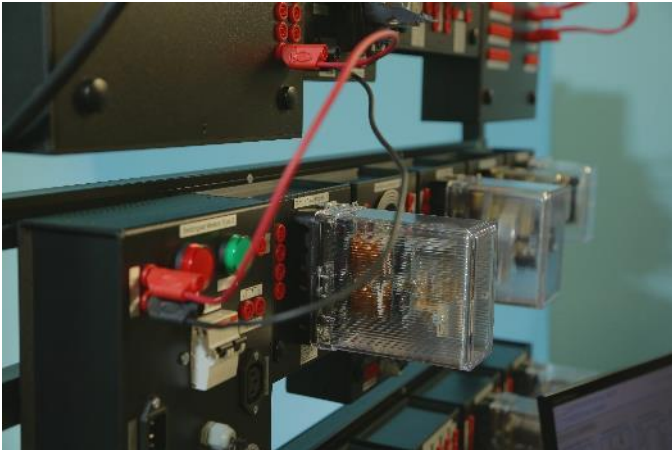
YouTube Link: <https://youtu.be/vz88lmCyl6s>



## Topics covered

- ✓ Indicating Relay
- ✓ Auxiliary Relay
- ✓ Time Relay
- ✓ Undervoltage Relay
- ✓ Overvoltage Relay
- ✓ Overcurrent Relay
- ✓ Reverse Power Protection (simulated)
- ✓ Undervoltage Protection
- ✓ Undervoltage Protection (with Generator)
- ✓ Overvoltage Protection
- ✓ Overvoltage Protection (with Generator)
- ✓ Under and Overvoltage Protection
- ✓ Under and Overvoltage Protection (with Generator)
- ✓ Overcurrent Protection
- ✓ Overcurrent Protection (with Generator)
- ✓ Current Cutoff Protection
- ✓ Current Cutoff Protection (with Generator)
- ✓ Overcurrent and Current Cutoff Protection
- ✓ Overcurrent and Current Cutoff Protection (with Generator)
- ✓ Thermal Relay Protection
- ✓ Three Phase Undercurrent Protection
- ✓ Three Phase Overcurrent Protection
- ✓ Earth-Fault Overcurrent Protection
- ✓ Voltage Controlled Overcurrent Protection
- ✓ Phase Overvoltage Protection
- ✓ Phase Undervoltage Protection
- ✓ Residual Overvoltage Protection
- ✓ Over/Under Frequency Protection
- ✓ Directional Power Protection

# Electromechanical and Microprocessor Relay Protection Hardware Pictures



# Electromechanical and Microprocessor Relay Protection Software Screenshots

