

Course description

G175

ACS800 single drive crane control program (+N697), operation and programming

Course Duration

The course duration is 2 days.

Course type

Classroom course

Course Goal

The goal of this course is to teach students to:

1. Understand motions of hoists, trolleys and long travels in different industrial cranes such as gantry, boom and tower cranes;
2. Perform basic dimensioning of crane drives;
3. Program and modify crane applications made by using the Crane Control Program.

Student Profile

This course is intended for electricians, technicians, and engineers, who commission, install, operate and service ACS800 with Crane Control Program application software and sales people.

Prerequisites

- Either course G152 or G156 (or equivalent knowledge). For course names and durations, please refer to the accompanying figures of learning paths.

Description

This course belongs to a learning path that may utilize blended learning. Please see the accompanying figure for possible learning paths.

Course Objectives

Upon completion of this course, students will be able to:

- Describe different industrial crane systems
- Crane drive basic dimensioning
- Describe safety functions
- Describe Crane Control Program features
- Make settings and start-up to the Crane Control Program

Main Topics

- Crane basics and terminology
- Basic dimensioning of crane drive
- Safety control
- Control and reference interfaces
- DriveAP with the Crane Control
- Brake control logic
- Load speed control
- Master/Follower and shaft synchro control
- Speed match and Speed monitoring
- Service counters
- Hands-on exercises

Low voltage drives training

ABB University Finland, Helsinki Training Center
Helsinki.abbuniversity@fi.abb.com
www.abb.com/abbuniversity

Course agenda

G175

ACS800 single drive crane control program (+N697), operation and programming

Day 1

- 08:30 Course Information
- 08:35 Basic of the crane systems
- 09:30 Coffee break
- 09:45 Basic of crane drive dimensioning
-exercises
- 10:15 ACS 800 Crane Control Product Overview
- 11:00 Start-up of ACS800 with Crane Control
(ID-run)
- 12:00 Lunch
- 13:00 Start-up of ACS800 with Crane Control
-exercises
- 13:30 Flexible control platform
- 14:15 Coffee break
- 14:30 Flexible control platform:
-exercises
- 15:00 Mechanical Brake Control and Torque
Proving
-exercise
- 16:00 End of the day

Day 2

- 08:30 Safety control
- 09:30 Coffee break
- 09:45 Master-Follower
- common load
- separate loads, Shaft & Position
Synchronization
- 10:45 Master-Follower
-Exercise
- 12:00 Lunch
- 13:00 Speed and Torque monitoring
- 13:30 Start-up procedure
- 14:15 Coffee break
- 14:30 Power optimization
- 15:00 Service Counters
- 15:30 End of the course
-course feedback
-presentation of certificates

Low voltage drives training

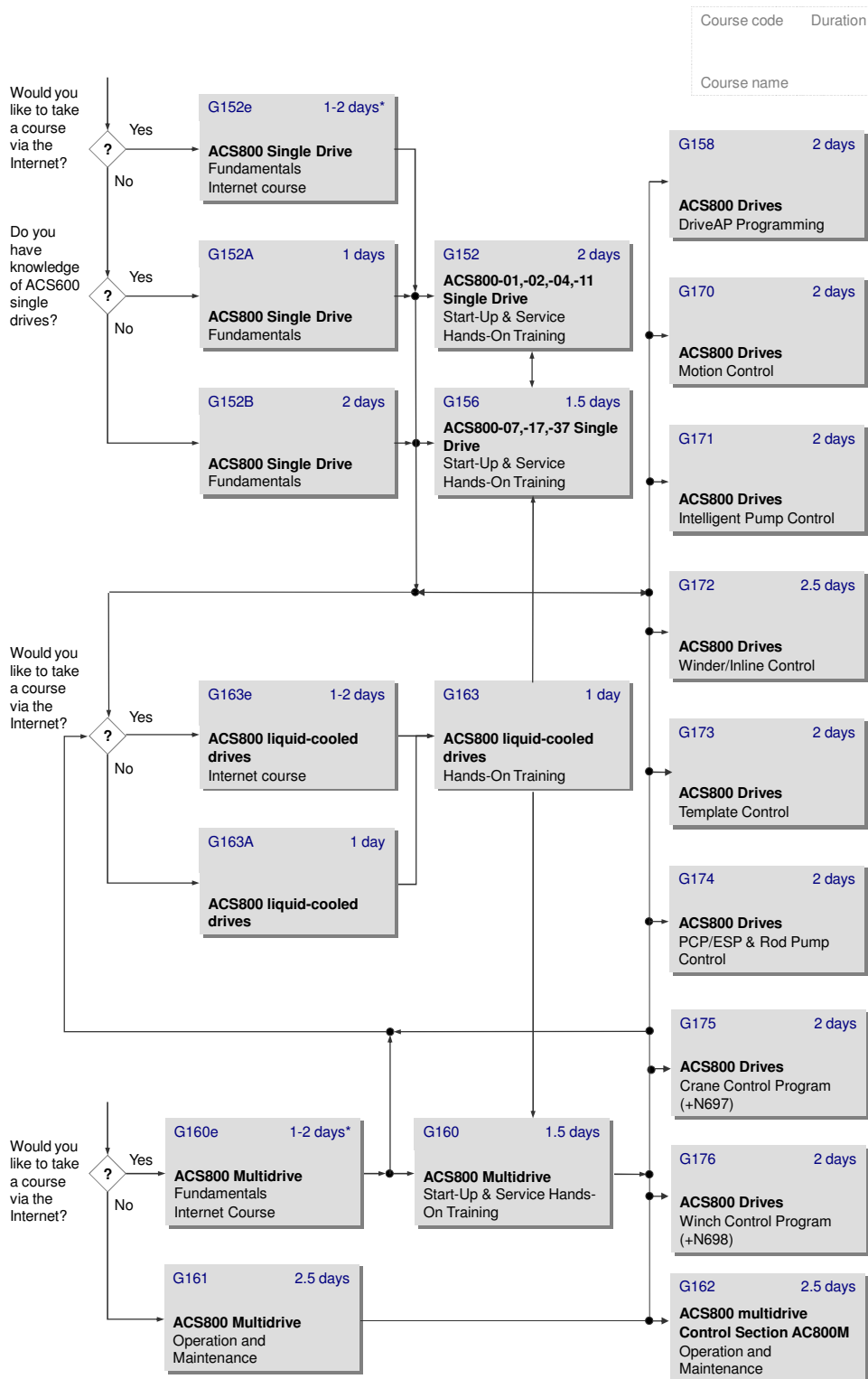
ABB University Finland, Helsinki Training Center
Helsinki.abbuniversity@fi.abb.com
www.abb.com/abbuniversity

Power and productivity
for a better world™



Learning Paths

ACS800 drives Learning paths



* The duration of the Internet courses depends on personal professional background and study pace