

# Hydropower Maintenance Expert

## Module 2: Focus on maintenance

### Course content

#### Option 1: Electrical path

Aging processes, condition assessment, maintenance tasks and recent case studies on the following electrical components

- Generator
- Excitation
- Protection
- Governor (hydraulic and digital)
- Balance of plant electrical

Exemplary risk assessment and root cause analysis

Training in a Voith workshop (1 day)

#### Option 2: Mechanical path

Aging processes, condition assessment, maintenance tasks and recent case studies on the following electrical components

- Turbines
- Governor (hydraulic and digital)
- Balance of plant mechanical

Exemplary risk assessment and root cause analysis

Training in a workshop (1 day)

### Duration, date and training venue

5 days, date to be agreed  
in Heidenheim an der Brenz, Germany

### Learning objectives

- + Know aging processes and interpret equipment conditions
- + Estimate related risks for HSE and operation of the HPP
- + Understand relevant state-of-the art maintenance tasks
- + Know and evaluate instruments for continuous improvement
- + Link insights to a risk assessment and root cause analysis

### Trainer

Various Voith experts with many years of experience in maintenance.

### Target groups and prerequisites

Engineers who are responsible for electrical or mechanical maintenance of hydropower plant equipment.

Prerequisites:

- Electrical engineering qualification (Bachelors or Masters) for option 1 (electrical)
- Mechanical engineering qualification (Bachelors or Masters) for option 2 (mechanical)
- Attended training “Hydropower Maintenance Expert Module 1: Component know-how” or passed entry test

Maintenance management staff who want to understand maintenance tasks in detail. Prerequisites:

- Electrical engineering qualification (Bachelors or Masters) for option 1 (electrical)
- Mechanical engineering qualification (Bachelors or Masters) for option 2 (mechanical)
- Min. 5 years of working experience in power generation or attended training “Hydropower technology overview”

### Price

24,900 EUR per module and option for 10 trainees\*

*\*Including visit costs, lunch and refreshments; excluding WHT, VHT, travel and accommodation costs for trainees; validity date is 2021-02-28.*

Voith Hydro GmbH & Co. KG  
Markus Kaufmann  
HydroSchool  
Tel. +49 7321 37 6500

A Voith and Siemens Company

hydroschool@voith.com  
www.voith.com/hydroschool

