Valmet IQ Color measurement and control course

This course provides a review of the theory and algorithms of color measurement and control as used in Valmet IQ's QCS.

Objective

The course is for QCS maintenance personnel. After completing the course the participants will be familiar with Valmet IQ Web Color measurement and IQ Color MD Control application.

Target group

QCS maintenance persons

Prerequisite

Valmet DNA operator skills
Valmet IQ Basic Course or
Valmet IQ Quality measurement maintenance course

Course duration

2 days

Course limit

Max. 8 attendees

Benefits

Through Valmet's professional training programs, either standard courses or tailored to your specific needs, you will have optimized competences available in your organization. Together we make a development plan for your personnel based on your business needs, and deliver the agreed training flexibly and effectively.

Optimized competence development enables
•better utilization of features in the automation and control solutions
•proper installation, start-up, operation and maintenance of the solutions and equipment
•improved knowledge of product-related safety and environmental issues
•better employee motivation

The results are typically visible as higher productivity, plant availability, improvements in end product quality, time and material savings.

For more information, contact us:
www.valmet.com/automation/training
training.automation@valmet.com

Course Program

Day 1, 9:00 – 16:00

Color Theory

- Definitions and standards
- Importance of the light source
- Color coordinate systems
- From spectrum to color coordinates
- Spectral response of dyes

Measuring the color

- Sources of measurement error
- Differences between online and lab measurements

Valmet IQ Web Color Measurement

- Structure and measuring principle
- Calibration
- Standardization
- Maintenance

Hands-on exercises

- Valmet IQ Web Color Measurement

Day 2, 8:30 – 15:30

AutoCalibration Tool

- Calculating the laboratory correlation:
- L,a,b => XYZ
- Entering correlation values by reels

Valmet IQ Color MD control

- Multi variable structure
- Limitations
- Dye feed
- Production speed feed forward
- Optimization algorithm parameters

Hands-on exercises on control simulator

- Defining dye spectral response
- Setting the control execution interval
- Fine tuning: filtering, post processing
- Cost function weighing
- Troubleshooting

Competence Solution

Assessment
Assessment of the technical competence of your team against the goals, addressing changing production and maintenance goals

Analysis
Analyzing the assessment results and possible gaps

Development plan
Identifying relevant training needed to bridge gaps in competence,

Training
Carrying out the specified training as scheduled
Predefined or customized, classroom and hands-on training with training demos and process simulators