



Quality Management & Operational Excellence

## Use of modern technologies in quality control

## Course Introduction

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Modern technologies are revolutionizing quality control across industries. This 5-day course, offered by BOOST, explores the latest advancements in quality control technologies, including AI, IoT, big data, and automation. Participants will learn how to leverage these technologies to enhance quality processes, improve efficiency, and drive continuous improvement. Through a combination of theoretical insights and hands-on applications, this course prepares professionals to lead quality control initiatives in the digital age.

## Target Audience

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- Quality control managers and directors
- Data analysts and quality assurance professionals
- Engineers and operations managers
- Professionals involved in digital transformation and quality control

## Learning Objectives

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1. Understand the role of modern technologies in quality control.
2. Learn to integrate AI, IoT, big data, and automation into quality processes.
3. Develop skills to use data analytics for quality improvement.
4. Gain insights into implementing advanced quality control systems.
5. Explore tools and methodologies for modern quality control.
6. Create a roadmap for adopting modern technologies in quality control.

# Course Outline

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## • 01 DAY ONE

### **Introduction to Modern Technologies in Quality Control**

- Welcome and introduction by BOOST
- The impact of modern technologies on quality control
- Key concepts: AI, IoT, big data, and automation
- Aligning technology adoption with quality objectives
- Benefits of integrating modern technologies into quality control

## • 02 DAY TWO

### **Leveraging AI and Machine Learning for Quality Control**

- How AI and machine learning enhance quality control processes
- Applications of AI in defect detection, predictive maintenance, and process optimization
- Tools for implementing AI in quality control
- Ensuring data accuracy and reliability in AI-driven systems

Building a scalable AI-driven quality framework

## • 03 DAY THREE

### **Using IoT and Big Data for Quality Improvement**

- The role of IoT in real-time quality monitoring
- Leveraging big data for quality analytics and insights
- Tools for collecting, analysing, and visualizing IoT and big data
- Ensuring data security and privacy in IoT-driven systems
- Communicating data insights to stakeholders

## • 04 DAY FOUR

### **Automation in Quality Control**

- The role of automation in enhancing quality control processes
- Applications of robotics and automated systems in quality control
- Tools for implementing automation in quality control
- Ensuring compliance with industry standards and regulations
- Building a culture of innovation in quality control

## • 05 DAY FIVE

## Implementing and Sustaining Modern Quality Control Systems

- How to successfully implement modern quality control systems
- Monitoring progress and making data-driven adjustments
- Ensuring long-term sustainability of technology-driven quality initiatives
- Creating a roadmap for adopting modern technologies in quality control

### Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 26, 2025	May 30, 2025	5 days	4250.00 \$	UAE - Dubai
Sept. 1, 2025	Sept. 5, 2025	5 days	5950.00 \$	switzerland - Geneva
Dec. 8, 2025	Dec. 12, 2025	5 days	4250.00 \$	UAE - Dubai