Statistical Quality Control

COURSE DESCRIPTION

Controlling and improving quality has become an important business strategy for many organizations, manufacturers, transportation companies, financial services organizations, health care providers, among others. In this course, modern statistical methods will be used for quality control and improvement.

The emphasis is on SQC because this is the backbone of Quality Management system of any Organization; SQC is a widely applicable technique that is very powerful for detecting problems and very quantitative for demonstrating proficiency of analysts and operators.

This course is intended to provide education and training in statistical quality control, how to implement and operate valid SQC and will help all Participants quickly and easily identify and correct errors in quality control procedures.

The involvement of trainees in the open discussions and case studies on various aspects associated with the authentication of quality control tools.

COURSE OUTLINE

Quality Improvement in the Modern Business Environment

- Dimensions of Quality
- Definitions of Quality
- Types of Quality Characteristics
- Quality Engineering Terminology
- A Brief History of Quality Control and Improvement

Introduction to Quality Control

- Statistical Process Control (SPC)
- Historical Review
- Development of QC Techniques
- Tools/ Objective of SPC
- On-Line QC and Off-Line QC

Control Charts for Variable

- Categories of Variations
- Types of Variable Control Charts
- Construction of X and R Control Charts
- Capability Using Minitab
- Charts Based on Standard Values
- Analysis of Pattern for X and R
- Control Charts for X and S
- Moving Range Chart MR

Control Charts for Attributes

- Acceptance Sampling
- Types of Attribute Control Chart
- Control Charts for Fraction Nonconforming (P)
- Statistical Basis for Fraction Nonconforming Control Chart
- Binomial Distribution for Fraction Nonconforming
- Investigation to out-of-Control Points
- Interpretation of Control Chart for Fraction Nonconforming
- Three Approaches for Control Charts with Variable Sample Size
- Control Charts for Nonconformities (Defects)
- Poisson distribution for Nonconformities (Defects)

Who Should Attend

- *Quality Control Managers / representatives*
- *Quality Analysts/ auditors*
- *SPC Coordinators / Team Members*
- *Individuals who want to become Members in Quality department for their company*

COURSE DURATION: 3 Days

TRAINING HOURS: 15 hrs

MINIMUM NO. OF TRAINEES: 15

LANGUAGE : English / Arabic