

MSA测量系统分析

Measurement System Analysis

课程简介

测量系统分析-MSA，是使用数理统计和图表的方法对测量系统的误差进行分析和评估，判断测量系统的可用性以及改进测量系统的技术。本课程将系统介绍测量系统变差分析的方法和应用。

课程目标

- ★ 了解测量系统分析的目的和应用范围
- ★ 认识测量系统中存在的变差（包括偏移，线性和稳定性）和量具的重复性和再现性
- ★ 学习测量系统分析的方法
- ★ 熟悉分析过程中使用的图表和统计学工具
- ★ 应用测量系统分析来达到持续改进

内容提要

- ★ 测量与数据概要
- ★ 测量系统的统计特性
- ★ 测量系统变差的分类、定义和图示
- ★ 测量系统分析MSA的目的、适用范围和术语
- ★ 测量系统研究
- ★ 测量系统的改进

课程对象

- ★ 生产经理
- ★ 质量经理
- ★ 质量工程师
- ★ 设计工程师
- ★ 制造工程师
- ★ 负责流程标准化和持续改进的人员
- ★ 从事统计管理的人员

课程时间

2天共16学时

Introduction

Measurement System Analysis (MSA) covers techniques for analyzing the variation within a measurement system, determining its suitability for use, and ways to improve measurement systems by using mathematical statistic and graphical methods. This course will introduce the methodology and application of MSA

Objectives

- ★ Understand the purpose and scope of Measurement System Analysis
- ★ Recognize measurement system variations (including bias, linearity and stability) and gauge repeatability and reproducibility
- ★ Learn methods of Measurement Systems Analysis
- ★ Familiar with the chart, graph and statistic tools applied in Measurement Systems Analysis
- ★ Use MAS in continuous Improvement

Contents

- ★ Basics of measurement and data
- ★ Statistic pattern of measurement system
- ★ Types, definition and graph of measurement system variation
- ★ The purpose, scope and terms of MSA
- ★ The study of measurement system
- ★ Continuous improvement of measurement system

Participants

- ★ Production managers
- ★ QA managers
- ★ QA engineer
- ★ Design engineer
- ★ Manufacturing engineer
- ★ Persons involve in the process standardization and continuous improvement
- ★ Persons involve in the statistical management process

Duration

2 days/16 hours