

Measurement Systems Analysis Workshop Details

Description

Explains the importance of accurate measurement systems, how to evaluate measurement systems for continuous and discrete data, concepts of repeatability and reproducibility. Course will use MINITAB statistical software. **Duration - 8 hours.**

Goal

Understand the methods to use to evaluate a measurement system, identify elements of a measurement system that need improvement and determine if measurement system accuracy is adequate.

Outline / Topics

What and Why of MSA

- Terms and Concepts
- Sources of Variability
- Variation
- Gage R&R

Discrete Data

- MSA Setup
- Attribute Agreement Analysis

Continuous Data

- Repeatability
- Reproducibility
- Part to Part
- ANOVA

Summary

- Importance of MSA
- Key Elements of Analysis

Results

Upon successful completion of the training, participants will have demonstrated the ability to:

1. Evaluate various aspects of a measurement system including repeatability, reproducibility, accuracy, stability and linearity.
2. Recognize sources of measurement system variability.
3. Determine if measurement system capability is adequate for the system or process being measured.
4. Use ANOVA method of analysis to evaluate a measurement system using continuous data.
5. Use Attribute Agreement Analysis to evaluate a measurement system using discrete data.