

# Measurement System Analysis (MSA)

While we control the variability of the products or processes, we must also make sure that our measurement can be relied upon. This is so, because the measurement system can also be subject to variability. Improving the measurement system (Gage R & R) is the first requirement for being truly in control of your process.

Capable measurement systems are a requirement of many major customer approval processes, including TS-16949. Robust measurement is an essential component of capable processes. This course develops the participant's ability to take a process-focused approach to evaluating the measurement system itself. Using simple statistical techniques, participants evaluate the measurement process to determine its acceptability and ability to detect improvements in the process being measured.

**Objectives:** At the end of the seminar, the participant would have acquired the following: (1) Understand why Measurement Systems Analysis is important;  
(2) Identify the different measurement systems variation;  
(3) Quantify the contribution of measurement system on overall product variation

## Agenda:

- General Measurement System Guidelines
- Types of Measurement System Variation
- Measurement System Discrimination
- Analysis of Measurement System
  - Stability
  - Bias
  - Repeatability
  - Reproducibility
  - Part-to-Part Variation
  - Linearity
- Gage Performance Curve
- Attribute Gage Study
- Inspection Capability Study



**Who should attend:** Quality Managers, Quality Engineers and Technicians, Management Representatives, those interested in auditing MSA, and those who are responsible for planning, using and maintaining measurement systems. Lab technicians and individuals responsible for process improvements should also attend.

**Seminar Fee:** P8,736 (VAT-inclusive)

**Webinar sessions:** 2

**Facilitator:** Rene D. Estember / Juanito S. Chan

**Dates:** Jun 26-27 '23, Sep 14-15

'23, Nov 28-29 '23, Jan 29-30 '24 (Note 8:30 am to 12:00 nn daily via Zoom)