

# MSA

## Measurement Systems Analysis

### **INTRODUCTION**

This course is designed to provide participants with an understanding of the principles of MSA and the methodologies for performing measurement systems studies. At the conclusion of the course, participants will be able to perform an R&R study and be able to interpret the results in the context of the process variation and product acceptance criteria. MSA is one of the core tools of ISO/TS 16949:2009, where it is required to be used within the Product Realisation process and is also a key element of Measure step Six Sigma to establish the reliability of the process measurement system.

### **DURATION**

1 Day, 09.00 – 16.00

### **WHO SHOULD ATTEND**

This course is suitable for quality professionals, six sigma change agents, lean practitioners and support staff who require a basic understanding of Measurement system evaluation techniques and the potential benefits (supported by examples) of understanding measurement system limitations.

- The course is highly practical and avoids the requirement for a detailed knowledge of statistics
- Managers, Team leaders, Engineers and technicians with responsibility for design, engineering, production and quality.
- Senior and line management who are responsible for creating and/or implementing ISO/TS 16949:2009 requirements.

### **COURSE CONTENT:**

- Sources of error in measurement systems (Linearity, Bias, Stability)
- Measurement system repeatability
- Measurement system reproducibility
- Measurement Uncertainty
- Gauge R&R calculations
- Attribute and variable measurement systems analysis
- Measurement system improvements

### **IN-HOUSE COURSES**

Offering better value for money, they can be customised and designed to match your individual specific requirements.

### **STYLE OF DELIVERY AND COURSE LEADERS**

Our course leaders have extensive experience in Automotive Quality Management and auditing to ISO/TS 16949. This wide experience enables them to make the course more interesting by using their relevant examples and case studies during workshop discussions.

### **CERTIFICATION**

All delegates will be awarded a certificate verifying attendance and completion of the course.

