



NewGrange

TRAINING & SERVICES LTD

Better People, Better Business®



Measurement Systems Analysis (MSA)

This course is widely applicable to companies who use measurements. It is also designed to meet the requirements of QS-9000 & ISO/TS 16949 and Six Sigma initiatives and the reliability of measurements is an important issue in any situation where measurements are used for decision-making purposes.

Who should attend?

This course is particularly relevant to engineers and engineering managers. To appreciate this course, an understanding of basic statistical principles is desirable hence, it is recommended that delegates have attended the Foundation Level SPC course.

Course Location:	On-Site at your premises
Course Duration:	Typically 1-2 Days, 9.30am - 4.30pm (dates to suit you)
No. of Delegates:	12 delegates max

Benefits to your organisation

- ✓ Satisfy the measurement system requirements of QS-9000 & ISO/TS 16949
- ✓ Avoid costly measurement errors
- ✓ Avoid disputes with customers and suppliers due to inadequate measurement capability

Course Programme

- Categories of Measurement System Error
- Measurement System Resolution
- Methods for Evaluating a Measurement System
 - *Range Method*
 - *Average and Range Method*
 - *Analysis of Variance (ANOVA)*
 - *Graphical Methods*
- Analysis of Results
 - *Components of Variance*
 - *Discrimination Ratio*
 - *Probable Error*
- Attribute Measurement Studies
- Other Measurement System Studies (eg Stability, Linearity)

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