Manufacturing Technology Training
An IMTMA initiative

Measurement System Analysis (MSA)
Date : 9 to 10 February, 2026
Time : 1330 Hrs to 1730 Hrs (Online Mode)

INTRODUCTION

Measurement Systems Analysis (MSA) originated with the automotive industry is eventually becoming the defacto standard of the manufacturing industry. Just as processes that produce a product may vary, the process of obtaining accurate measurements and data may also have variations and can produce defects. MSA is a holistic approach to ensure the integrity of data used for analysis and evaluates the entire process of obtaining measurements, i.e test methods, measuring instruments, operations, procedures, software and personnel that affect the assignment of a value to a measurement and to understand the implications of the measurement error. MSA is an important element of Six Sigma methodology and other quality management systems.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing an online programme on Measurement Systems Analysis.

FOCUS AREAS

- Review of basic terms - Accuracy, Precision, Bias, Measurement Uncertainty, etc.
- Definition and purpose of MSA
- Difference between calibration and MSA components of a measurement system
- Study of R&R - Range method and ANOVA method
- Relation between MSA and SPC methods
- Gauge performance for attribute measurements
- Measurement study preparation
- Acceptance criteria
- Case studies and examples of MSA for specific components
- Sample exercises for calculations of R&R and plotting SPC charts

KEY TAKE AWAYS

- Describe the purpose of MSA and its benefits to manufacturing organisations
- Understand the 5 elements of MSA and their evaluation methods
- Learn how to conduct MSA study in manufacturing units
- Understand acceptance criteria of Gauges used in production shop

FEE PER PARTICIPANT (PER LOGIN)

Rs. 2999/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 120/-
Overseas Participants

Group Concession : 10% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company

FACULTY

This programme will be conducted by **Mr. M. C. Ramakrishnan**, Former Vice President -Quality, Bosch Limited.

M**r. M. C. Ramakrishnan** is an industry expert with over 40 years of experience in the field of quality tools like Six Sigma, SPC, MSA, Poka - Yoke etc. He is a trained ISO 9001 and TS 16949 auditor, trained six sigma black belt as well as an FMEA moderator. He has championed a number of Quality Improvement projects at Bosch. He was associated in Bosch's campaign and pursuit for 5S, Poka Yoke, SPC, MSA & TPM initiatives.

For Registration Contact

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REGISTRATION : Prior registration with an online advance payment is must. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.