

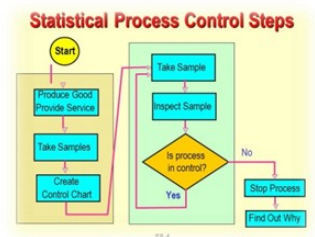
# Comprehensive Workshop On Measurement Systems Analysis (MSA)

## and Statistical Process Control (SPC)



A **measurement systems analysis (MSA)** is a specially designed experiment that seeks to identify the components of variation in the measurement. Processes that produce a product may vary, the process of obtaining measurements and data may have variation and produce defects. A measurement systems analysis evaluates the test method, measuring instruments, and the entire process of obtaining measurements to ensure the integrity of data used for analysis (usually quality analysis) and to understand the implications of measurement error for decisions made about a product or process. MSA is an important element of Six Sigma methodology and of other quality management systems.

**Statistical process control (SPC)** is a method of quality control which uses statistical methods. SPC is applied in order to monitor and control a process. Monitoring and controlling the process ensures that it operates at its full potential. At its full potential, the process can make as much conforming product as possible with a minimum (if not an elimination) of waste (rework or scrap). SPC can be applied to any process where the "conforming product" (product meeting specifications) output can be measured.



### LEARNING OUT COME

Upon completion of this training, participants will be able to:

- ◆ Know History of Statistics in Manufacturing
- ◆ Variation
- ◆ Process Control
- ◆ Central Limit Theorem
- ◆ Common Cause vs. Special Cause Variation
- ◆ Out of control signals
- ◆ Capability Analysis
- ◆ Individuals and Moving Range Charts



### COURSE OUT LINE

- ◇ Overview of SPC & MSA
- ◇ Objectives
- ◇ Introduction
- ◇ Benefits of SPC & MSA
- ◇ Fundamentals of SPC & MSA
- ◇ Terms & Definitions



### METHODOLOGY

- ◆ Question and Answer sessions
- ◆ Instructor Led Training
- ◆ Regain of knowledge from previous trainings
- ◆ Role play and live case studies
- ◆ Group Discussions

### Brief Introduction of TnQS

**TnQS** (Registered as **RELEVANT TRAINING AND QUALITY SOLUTIONS**) has been established in India (Hyderabad) with an aim to achieve global identity as India's major Organization to bring paramount solutions for Quality Management Systems and Product Safety of Worldwide Standards.

With a spectrum of well-versed and experienced backup of more than 60 distinguished auditors, We put forward our Training and Consulting services for ISO 9001, ISO14001, ISO/TS 16949, HACCP, ISO 22000, ISO 27001, BS 7799, SA 8000, OHSAS 18001, WHO-GMP, GLP, GPP, CE Mark, PED, ADW 2000, FAMIQS, NAAC, NBA, EMI / EMC Training, Lean Manufacturing and Process Improvement etc. not only across India but also to Middle East and ASIAN countries.

### WHO TO ATTEND

- ◇ Senior and middle management executives Professionals who want to understand Core Tools
- ◇ Quality Professionals
- ◇ Production Managers
- ◇ Process Managers
- ◇ Engineers etc.,

Please Contact / E – Mail your Confirmations to

Name	Mobile	E – Mail
Pramod	9703423000	pramod.satya@tnqs.in

**Professional Fee:** INR 3500/- (Each Participant) plus taxes

**Venue:** To be informed to the *confirmed participants*

**E—Certificate from TnQS**



[www.tnqs.in](http://www.tnqs.in)