**Bengaluru Chapter** of Indian Society for Quality presents a 2.5-Day Program for Middle Management & Section Heads

# TQM for Errorfree Manufacturing

**A Practical Approach** 

by **Mahesh Hegde** 

6-8 July, 2023

At Bengaluru (Physical mode)

Venue: Taj Yeshwantpur,

No. 2275, Tumkur Road, Bangalore – 560022

- ✓ Enhance your competence!
- ✓ Create happy customers!
- ✓ Achieve zero defects!
- ✓ Grow with the organisation!





## **TQM for Errorfree Manufacturing**



## **Objective**

Learn from an experienced campaigner of TQM on doing first time right.

Take your existing manufacturing process to zero defect level by learning and applying best in class approaches.

#### Why this program!

it is easier said than done when you say "achieve zero defects". The challenge lies in understanding "how to achieve it". Familiarizing ourselves with the underlying philosophy and principles can help to change our mindset. Knowing the philosophy and principles is not enough; we need to learn how to implement them.

The purpose of this program is to offer a **step-by-step approach for achieving error-free manufacturing** starting from the design and development in addition to the general principles. It is crucial to learn tools along with templates & formats and **practical exercises** to adopt **error-free manufacturing**..

Traditionally, we have been using **Ishikawa diagrams** to list causes. What are the other tools to systematically list all possible causes? How can we use **structure analysis**, **function analysis**, **and failure analysis** to achieve error-free manufacturing?

How can we adopt **world class FMEA approach** to achieve error-free manufacturing?

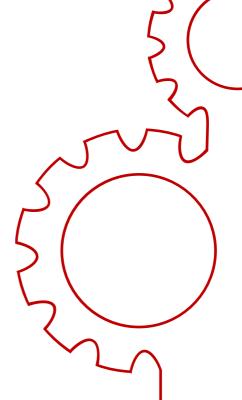
What are the best-in-class approaches for **avoiding human errors** other than traditional Poka-yoke, operator training, and OPLs?

How to avoid human errors even with temporary manpower?

What are the best-in-class methods for creating a **Past-Trouble Database** and learning from day-to-day abnormalities? **Failures can lead to success if we learn from them.** 

**20 key points to make SOPs world class**. How can we implement a best-in-class approach in operator training and foster a culture of adherence to SOPs?

Learn **best in class problem-solving methodologies** & tools for addressing issues in manufacturing processes such as machining, casting, painting, heat treatment, assembly, fabrication and warranty problem solving.



### **Glimpses of Program Content**



Zero Defect Approach

Approach for Error Free Manufacturing in 21st Century

World Class SOP

20 Key aspects of world class SOP. SOP assessment.

How to build culture of adherence? How to build culture of SOP adherence in contract manpower situation? What is the best-in-class way to conduct On the Job Training? What is 4 step training approach? How to develop supervisors who can build culture of SOP at shopfloor? Operator Observation sheet How to set up concept of Dexterity / Dojo set up. Key considerations and examples. Includes – demonstrations & exercises and noting implementation plan.

**Human Error Prevention** 

4 category of causes of human error and methods to deal with them. More comprehensive manner to deal with Human Errors including Poka-Yoke. 16 Human error modes and 13 principles to overcome. Examples/ case studies/exercises.

Quality in NPD

Quality tools and Methods for new product design and development. How to document lessons learnt and technical knowhow. DFMEA – Considerations. 5 major causes of Why do we get warranty problems which needs to be considered during design. Key points related boundary diagram, P-Diagram and Interface matrix. Design verification and Validation.

Process Design Aspects – World Class Process FMEA-DOE, Key points. MSA and SPC, 4 Criteria to say Measurement System is good or bad, When to use Cp, Cpk and Pp and Ppk? Application of 2x2 matrix Control Plans – key points related application.

**Problem Solving** 

- What is problem Common Mistakes in problem solving
- Chronic Vs Sporadic & Dealing with sporadic Common mistakes in writing causes
- 3 types of causes 4 Types of Problems
- Problem Solving Approach Selection
- · Possible Cause Vs Significant Cause
- What is Six Sigma?
- Leadership Role Facilitator, mentor, reviews

Approach for chronic problems. Approach for warranty problems, Approach for problems which involves multiple parts and assembly. Various problem-solving tools and how to select them. Flow charts for problem solving tool selection. What is Good Bad analysis? Why is hypothesis Testing? How to deal with sporadic problems? How to do effective Gemba?

#### Who should attend?

- Head Quality and Team
- · Head NPD and team
- Head manufacturing and executives
- Section heads
- Middle management
- TQM Counsellors
- Business Excellence team members

## **Faculty**





### **Mahesh Hegde**

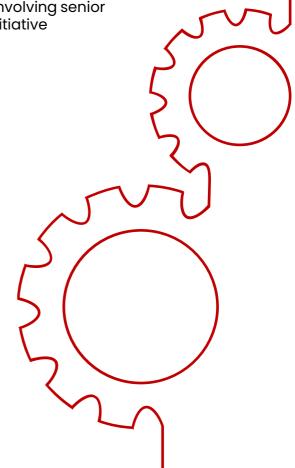
**BE -** Mechanical from Sir M Visvesvaraya Institute of Technology -1997-2001

**Experience:** 22 years' experience with **19 years in training and consulting** in the field of quality

**Trained** by Japanese and Indian TQM Sense Prof. Hitoshi Kume and Mr. N. Ramanathan. Trained in "Production System" by Renault-Nissan Institute in France.

**Facilitating Journey of Excellence through TQM** involving senior management in "organization transformation" initiative

- Expertise: Specialized in TQM, Lean and Six Sigma. Facilitated to implement Daily management, World class FMEA, SPC, Best in class SOP, MSA, human error prevention and structured problem solving approach
- Research and Publications: Presented papers at international conferences including ICQ in Tokyo, Asian Network for Quality, Alucast, NIQR, QCI, and ISQ.
- ❖ Project Experience: Successfully facilitated more than 2500 problem solving projects, including advanced level projects, with participants winning awards at national levels such as CII, ACMA, and ISQ and helped to implement best in class manufacturing practices to achieve zero defects
- Training Experience: Trained more than 15,000 people, including senior management, in the journey of transformation in India and overseas.
- Strengths: Possesses in-depth subject knowledge, impactful training delivery, practical facilitation experience, and skills.
- Clientele: Served more than 100 companies, including large and medium-sized organizations, in the automotive OEMs, Tier 1, process industry, service industry, and pharmaceutical industry sectors



## **TQM for Errorfree Manufacturing**



#### **About Us**

Indian Society for Quality (ISQ) is a not-for-profit society established in 1996 to fill the need for a national forum for interaction among quality professionals, leaders, practitioners and academics. ISQ is a non-partisan, independent body that attracts and invites individual members from business organizations, health care and educational institutions, government agencies and NGOs. Members share their knowledge and learn from each other. ISQ is thus engaged in both creating and disseminating knowledge.

Its mission is to contribute to the thriving of humanity in a healthy planet.

ISQ is well linked to similar national quality bodies in other countries. It is a board member from its very inception and has represented India in the Asian Network for Quality (ANQ).

ISQ is a national partner to International Quality Innovation Award initiated by Laatukeskus Excellence, Finland and Quality Sustainability Award promoted by International Academy for Quality. ISQ is the face of India in the world of quality.

To know more visit <a href="https://isqnet.org/about-us/index.html">https://isqnet.org/about-us/index.html</a>

#### Registrations

As the program is intensive, the number of participants is restricted. Registrations will be on first come first served basis. For effective impact, organizations are encouraged to register multiple participants.

#### **Registration fees**

- Rs. 34,000/- +18% GST per participant. (Total Rs 40,120/-)
- Rs. 30,600/- +18% GST per participant (Total Rs. 36,108/-) for the organizations registering 2 or more persons.
- The fee covers programme fees, lunch and two tea breaks on all the three days.

# For registration and further details, please write to <a href="mailto:info@isqnet.org">info@isqnet.org</a> Or call 8012580850

**Note**: The fees should be credited to ISQ account below before the start of the program

Refund policy. Change in participant can be allowed if the registered participant is unable to join. Or the fees can be held over for the next CEO through TQM program.

Full refund if desired, can be made if cancellation is made before 24 hours of start

of the program.

#### Please provide following details while registering

- Name
- Contact number
- Designation
- Email ID
- · Name of the Organization & address
- GST No. If to be mentioned in the invoice
- Details of payment made

Payment through cheque, IMPS/RTGS/NEFT may be made to the following account.

- Beneficiary Bank Account Name: Indian Society for Quality
- Name of the Bank: HDFC Bank
- Type: Current Account
- IFSC Code: HDFC0000027
- Bank Account No.: 00272000001288
- Branch: Greater Kailash 2

