## SHREYAS QUALITY MANAGEMENT SYSTEM (SQMS)



# **Training on**

## **Measurement Uncertainty**

**Course Duration: Two Days** 

## Lead Faculty:

## Dr. R. R. LAKHE, Director , SQMS , Nagpur

Ph.D. (Industrial Engineering) NITIE, B.E.(Mech), M.Tech.(Prod).,Dip. Trg. & Dev.,MBA., M.A.(Socio) (Pub.Admt.) Qualified ISO9001 QMS,ISO14001EMS, ISO50001EnMS, ISO45001OH&S Lead Assessor, Six Sigma Master Black belt

Registered Sr. Consultant for ISO 9001, Business Process Management, Lean Manufacturing consultant & Lab Management System (ISO17025 NABL) with Quality Council Of India, Govt.of India.

## INTRODUCTION

Laboratory accreditation is gaining importance as the quality, reliability of the test result are increasingly demanded by the customers, ISO has introduced the lab accreditation standard , 17025:2017 for the General Testing Laboratory and 15189:2012 for Medical (Pathology) testing Laboratory for accreditation, and the large numbers of lab both from government and private organization are going for accreditation. Approximately 6000 laboratories are accredited till now in India. In central India around 25 labs are accredited and many more labs are interested in getting accreditation. **Calculation of Measurement of Uncertainty is one of the requirements which laboratory has to fulfil for all its measurements.** 

## OBJECTIVES

- □ Understand Measurement Uncertainty Terminology
- Understand the requirements of ISO/IEC 17025:2017 w.r.t. Measurement Uncertainty.
- Accreditation Bodies, Regional Body's and ILAC policy on reporting Measurement
- □ Uncertainty by test and calibration laboratories.
- Understand the methodology of evaluation and expression of Measurement Uncertainty.
- Evaluate & Express Measurement Uncertainty using live examples from Laboratories.

### COURSE CONTENT

- Based upon ISO Guide 98-3
- Calculation of Uncertainty by GUM method
- Terminology used in Uncertainty Calculations
- The basic process from specification of the measurement model through to evaluation of the
- Final figure of measurement uncertainty
- Practical approach to calculation of measurement uncertainty

• Reporting Methodology : ILAC, APLAC and Accreditation Body's Policy on evaluation and reporting of Measurement Uncertainty

#### **PROGRAM DETAILS:**

The program will be conducted by experience and experts from the field and will have hands on exercises on planning, calculations and interpetation of Measurement Uncertainty

#### **METHODOLOGY:**

- Training course deploys accelerated learning techniques through: Class Room
  Interactions
- Individual / Group Exercises Practical Exercises

#### **BENEFITS:**

On completion of the course the participants will be able to:

- Understand the terminology required for evaluating uncertainty in measurements.
- Evaluate and report measurement uncertainty.

The theory of statistics, as required for the estimation of Type A uncertainties, is developed as a tool at the concepts level so as to provide a thorough grounding in the essential aspects of uncertainty as laid down in the Guide to the Expression of Uncertainty of Measurement.

### CERTIFICATE

Participants qualifying examination shall be awarded certificate of successful completion of the course.

## WHO SHOULD ATTEND

- The Owners, In charges, HODs, technicians and laboratory personnel from various testing labs, particularly technical manager of the lab.
- □ Students from Engineering, Management, and Science Streams.
- Any other individual interested in knowing the Measurement of Uncertainty Calculations.

NOTE: Participants should bring Laptop or Calculator for the training program as they will be required to do Uncertainty Calculations.

#### ABOUT SQMS

**Shreyas Quality Management Systems** is a management training & consultancy firm focused on organizational performance improvement through the globally accepted tools such as Lean manufacturing, 5S, ISO 9001QMS, ISO14000 EMS,ISO 45001 OSHAS, ISO50001EnMS, TPM, ISO17025/15189 Lab Accreditation NABL, NABH, TQM, quality costs, Lean Six Sigma, Design of Experiments etc.

\*SQMS was accredited by Consultancy Development Centre, Govt of India, and ISO9001 QMS, ISO14001EMS & ISO 45001 OHSAS certified, MSME registered and is Quality Council of India Registered Lean and Business Process Improvement, Lab Management System(NABL) Consultant. QCI NABET has approved SQMS as the Lab Consultancy Organization. It is the first and only one to be recognized by QCI for consultancy work for NABL accreditation in India.

It is lead by Dr.Ramesh R Lakhe who has completed his Doctoral Program from NITIE Mumbai and is Registered Sr. Consultant for ISO 9001, Business Process Management & Lab Management System with NRBPT, QCI, New Delhi. SQMS has well qualified, trained and experienced team in diversified areas.

SQMS has been associated with Institution of Engineers (I) Nagpur and has conducted many programmes on professional development. For last more than 10 years SQMS along with Institution of Engineers (I) Nagpur is organizing All India Seminar 'Quality Progress''. This seminar provides platform for researchers, academicians, professionals to interact and present case studies and research. This seminar also conducts the competitions for organizations such

as "Quality Circle competition, 5 S & Kaizen Competition, Six Sigma Competition" etc. in which participation from very large number of small, medium, large, Govt, public sector & private organization takes place.

**SQMS** has association with many engineering & management Institutes like Shri Ramedobaba College of Engineering & Management Nagpur, YCCE Nagpur, Raisoni Engineering College, BNCOE Pusad etc. and have signed MOU with them. This has resulted in availability of expert resources, facilities like library, centres for the training and consultancy projects. Many of the faculty members of the institutes are associated with us in the training & consultancy projects.

**SQMS gives emphasis on learning & development.** It regularly conducts in house trainings for its members on new areas and provides opportunity to them through web as well as classroom learning. This keeps the knowledge level of its members updated.

SQMS also give importance to research & development. Under the guidance of

Dr. Ramesh Lakhe, Director,SQMS, 14 scholars have completed their PhD research on the themes such as Lean Manufacturing, TPM, TQM, Six Sigma, ISO etc. and many more are perusing. Also there has been significant contribution to the literature through the publication of 25 books on Total Quality Management, ISO systems, Six Sigma, QC Tools, SPC etc and more than 200 papers/articles in International and national Journals/Conferences.

SQMS is committed for social development & is conducting "5 S "training for students of engineering and motivating them in its implementation so as to improve housekeeping and also contribute towards inculcating culture of Swaccha Bharat amongst the students. SQMS has also helped conduction of Pranayama and meditation programmes for organizations such as Art of Living. AS its CSR activity, SQMS has provided consultancy for development of systems and obtaining ISO9001 certification to organizations such as Central Prison, Nagpur.

SQMS has helped many organisations both from manufacturing and service sectors to analyse and improve their performance through well established systems. It has team members possessing a wide spectrum of professional qualifications, experience and expertise which could effectively and efficiently address improvement issues which are of importance to business / organization. It has provided consultancy to more than 100 organisations both from manufacturing and service sector (Organizations cover small, medium, large scale units from various sectors such as Power, Health care, Software, Logistics, Laboratory, Furniture, etc.) for process, productivity & profit improvement.

The **major clients of SQMS** include NTPC, Adani Thermal Power Station, Indiabulls, Reliance Power, Reliance Industries Ltd., MAHAGENCO, MAHATRASCO, MAHADISCOM, Mahindra & Mahindra, Pix Transmission, Grind-well Norton, Indian Sky Tanking, MECL, NCL, SCCL, SMS Group, PESO, IBM,NEERI, JNARDC, Spacewood, Micropro Software Sol, ICAR, CICR, Tata Steel, NMC, Bilaspur Municipal Corporation, NEERI etc.

The details of SQMS can be obtained on www.sqmsindia.com

#### **Consultancy Services Offered**

- ✓ ISO 9001 : 2015 QMS,ISO14001:2015 EMS ,ISO 45001,ISO 15189, ISO17025 , ISO50001 ENMS, ISO 27001 ISMS
  - Training and consultancy for certification
  - o Maintenance of the system through regular audits
  - o Documentation of the system
  - o Internal audit
  - Pre-certification audit
- TQM Training and Implementation consultancy
- Design of Quality Cost Collection System and Analysis
- ✓ Six Sigma Green Belt Training & Consultancy
- ✓ TPM training and Implementation Consultancy
- ✓ Lean manufacturing tools and techniques Implementation Consultancy
- Quality Award (CII Exim, Rajiv Gandhi National Quality Award, Bajaj Quality Award)
   Preparation
- Consultancy for Process mapping & improvement
- ✓ Good Manufacturing Practices (GMP)

#### **Training Programmes Offered**

Training programmes will be designed as per the requirements of the organization on various diversified topics pertaining to process improvement which includes the following:

- ISO 9001 : 2015 QMS,ISO14001:2015 EMS ,ISO17025/15189 NABL ,ISO 27001 ISMS, ISO50001 ENMS,ISO45001:2018OHSAS: Awareness, Documentation, Internal Audit & Lead Auditor Training
- ✓ NABL-Lab Quality Management System

- ✓ Safety, First Aid
- Green Audit
- Design of Experiments
- ✓ Quality Costs
- Total Quality Management
- Six Sigma
- Lean Manufacturing tools and techniques
- ✓ ISO/TS Tools like APQP, PPAP, MSA, Control plan,
- Statistical Process Control
- ✓ Total Productive Maintenance
- 5 S, Kaizen, Pokayoke
- ✓ Value Engineering

#### Auditing

SQMS conducts Green Audit, Safety Audit, Vendor audits, ISO Management system internal audits, 5 S audits for the orgnisations.

#### Organised by-

#### SHREYAS QUALITY MANAGEMENT SYSTEM (SQMS)

(Consultancy Development Centre, Govt. of India Accredited, and IMS certified Training & Consultancy Organization) Reg. Office : 11, Tulsi Vihar, Third Floor, Abhyankar Nagar Main Road, Abhyankar Nagar, Nagpur- 440010 (Maharashtra, India) . Telefax: 0712-2240012;09822469560, E-Mail: sgmslakhe@gmail.com ;info@sgmsindia.com Website: www.sgmsindia.com

> "Coming Together is Beginning, Sharing Together is Progress; Working Together is a Success" Let's Work Together For Success.....