ENERGY1
TECHNICAL CONSULTANCY FOR ENERGY & UTILITIES

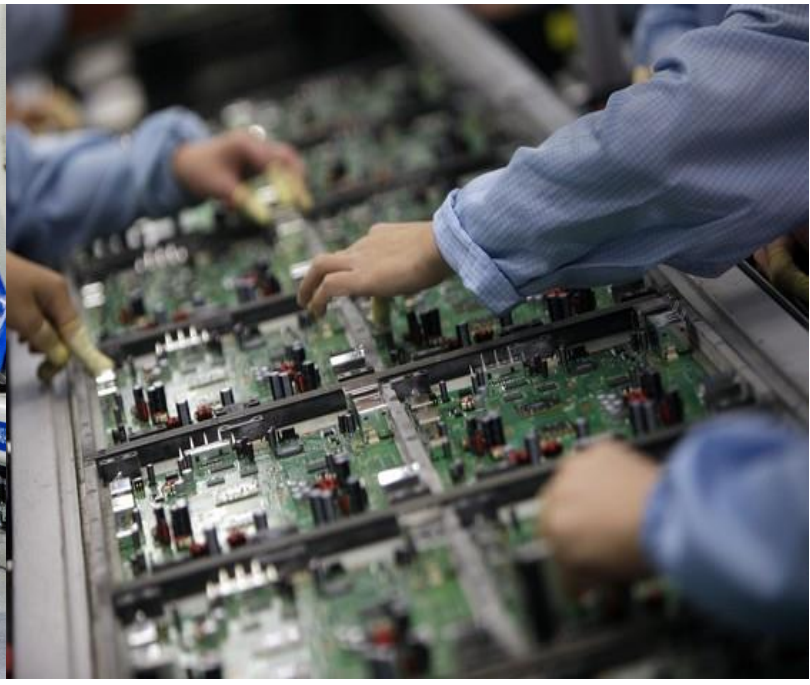
Manufacturing series

Managing Process Quality to drive World Class Customer Performance

12th – 13th March 2018 – Penang, Malaysia

Modernizing your approach for today's critical customers

Reliability Solutions calculation models
Tools to that can be instantly applied in your own environments



In collaboration:

PETRO1
TECHNICAL CONSULTANCY FOR OIL & GAS INDUSTRY

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Program Overview

In today's complex product manufacturing, the old approach to QC controls simply no longer apply. Using the traditional standards for QC batch controls, etc to AQL target levels simply DO NOT guarantee steady Quality levels.

Processes are so much more complex now that a very detailed continuous measurement approach is required to monitor at component failure level up to full product level. This requires very detailed process mapping and appropriate use of data to drive continual improvement and utilize for predicting expected improvement in customer Early Life failure levels.

Course attendees will learn from a range of case studies used in training material how to set up most efficient forms of process measurement and effective management.

Attendees will be given the Reliability Solutions calculation models used in the training to use in their own laptops during the education and in the group assignments

The course provides a very structured and modern-day approach to process quality optimization and how to use data to predict customer escape levels. This course will allow some excellent benchmarking with other top company approaches and teaches how to implement from bottom up.

Participants will walk away with the ability to:

- Determine how to set up your process control measurements and used of data
- Applying the most effective 6 sigma tools.
- Using Target setting to drive continual improvement
- Using in process measurements to manage suppliers and remove need for incoming inspection
- Understanding how to use process data for predicting factory escape rates to customer
- Apply DOE to optimize complex parts of the process
- Making OQA less critical and minimizing dependence on Quality 'catching' all the defects
- Controlling New Product Introduction
- Driving COST REDUCTION through savings
- Reliability Solutions calculation models that can be instantly applied in your own environments

Attend this course to Master:

- Determining the Importance of Process Mapping to control Process Quality
- Understanding why detailed process measurement is so important
- Using PFMEA to plan the best process
- Applying the appropriate 6 Sigma tools to improve process quality
- Using Process Yield data to predict escape levels to the field and Early Life Reliability
- Making sure you set up the correct and effective Management Reporting
- Identifying why Process Quality controls Early Life Warranty failure levels
- Using Design of Experiments (DOE) to optimize process quality
- Measuring New Product Introduction and ensuring maximum process quality

Why should you attend?

If you are truly interested in optimizing Process Quality in a manner that drives results quickly, then you should attend this seminar. The seminar is packed with real life case studies across a range of clients the trainer has worked with in last 20 years as consultant, working mainly in Asia region.

This seminar is NOT simply using theory from standard Quality references and literature like most Quality Improvement seminars, it shows how to use the fundamental steps mixed with quite unique measurement and reporting approaches which enable engineers and management to see clearly where they should be making change for improvement. The seminar also provides proven methodology to predict escape rates from process to customer and how these can be minimized towards Zero defects.

Finally, the attendees will get an insight into process reliability testing and how to set up within a process environment to provide further control of Early Life failures within the customer environment, making the Quality role more fulfilling and meaningful.

As Deming famously quoted;
"It is not enough to do your best; you must know what to do, and then do your best."

This program is intended

This course is designed for process engineers and managers who will have some responsibility for setting up process quality control methods, supplier quality management, quality assurance, customer quality management.

- Product Quality managers, engineers
- Customer Quality engineers
- Supplier Quality Engineers
- Product Engineers
- Professionals who are involved in managing the process quality.

Managing Process Quality to drive world class customer performance (2 Days)

DAY 1

Session 1: Introduction to Process Mapping and Setting Up Process Measurement

- Making sure measurements are installed in process and How to use the measurement data
- Driving process problems back to earliest point in the process and setting up effective process reporting for easy management understanding

Session 2: Understanding the Use of the Appropriate 6 Sigma Tools to Drive Process Improvement

- Applying the basic and effective 6 sigma tools and selecting those which will make the difference to your organization
- Using the 6 steps to 6 sigma approach to manage process improvement

Session 3: Understanding the best techniques to apply for effective Problem Solving

- Selecting the right company approach to streamline Problem Solving
- The improrrtance of Cause & Effect Analysis to define Strategic Company Improvement Projects
- Why is 8D ineffective in today's world?

Session 4: How to Set Up a Continual Improvement Program

- Target Setting and how to use for continual improvement
- Making Continual Improvement a Living programme

Session 5: Applying PFMEA Prior to Start of Mass Production

- Why PFMEA is important, How to use a simplified and effective approach

Day 2

Session 6: Predicting Field Failure Rates from Process Failure / Yield data

- Methods to predict Escape Rates into customer from the manufacturing process

Session 7: Managing suppliers with in process measurements

- Setting up supplier management in an effective manner
- Using Supplier Measurement scoring to manage supply chain with effective audit methods
- How to effectively rate good suppliers and NOT rely on old style supplier audits that have minimal effect

Session 7: Applying DOE with Fractional Factorial Design to optimize processes

- Simplifying Design of Experiment approach to define key process parameters that drive Process Quality

Session 8: The importance of Reliability Testing within the process

- Realising why Customer Reliability is NOT simply the responsibility of Development Engineers
- Why Process Reliability ois so important and the effect on Customer Satisfaction

Session 9: Workshop with attendees who will be given a task of deciding how to set up a new manufacturing process control approach

- Groups of attendees will be given examples and given 45 mins to develop their detailed plan
- Discuss their output and the GAP's in their approach

Session 10: Workshop with attendees who will be given a task of deciding how to set up a new manufacturing process control approach

- Groups of attendees will be given examples and given two hours to develop their plan
- Ability to understand how they look at the 'total picture' and NOT simply apply standard SPC with end of line testing to attempt to 'catch' the escapes!!
- Discuss their output

Workshop / General Q&A

Managing Process Quality to drive world class customer performance (2 Days)

Programe Facilitator – Martin Shaw (Bsc Hons)

Martin Shaw (BSc Hons), MD Reliability Solutions

- Over 34 years of experiences in reliability and process quality improvement.
- Expert in reducing product failure levels at the most expensive end of the Product Cycle.
- Extensive consultation and work assignments around USA, Europe, and Asia regions.
- Partial list of clients: Astec Power, Philips, Vestel, Acer, LG, Atmel Semiconductors, GE, Hua Wei, Emerson Power, Wolfson Microelectronics, SMART Technology, Etc

Martin successful results achieved by current and past clients:

- TPV China (World No. 1 LCD Monitor / TV maker) – 100% improvement in Warranty Fail levels, 2008-2009
- Vestel Electronics Turkey – 300% improvement in Warranty fail levels, 2008 – 2012
- SMART Technology Canada – 70% Supplier Process Quality Improvement, 2015 to 2016

Awards

- Gold Award for Best Paper at Reliasoft Applied Reliability Symposium in Berlin, March 2010 (Achieving World Class Reliability)
- Gold Award for Best Paper at Reliasoft Applied Reliability Symposium in Singapore, Oct 2010 (Achieving World Class Reliability)
- Gold Award for Best Paper at Reliasoft Applied Reliability Symposium, Warsaw, March 2012 (Predicting Warranty FRR using Process Yield Data).

Reliability Solutions

Reliability Solutions was formed in 1997 by Martin Shaw, previously of IBM as Quality and Reliability Specialist within PC business unit. Martin Shaw worked as specialist in Product and Commodity Quality / Reliability optimization for the Electronic Product Suppliers to IBM between the years of 1982-1997. During this time, he worked extensively throughout Asia, USA and Europe with wide range of suppliers. Since 1997 he has worked with a wide range of companies Worldwide and provided solutions to ensure RAPID improvement in a dynamic environment. These companies include many Blue-Chip companies: Daewoo Electronics, LiteOn, Astec Power, Philips, TPV, Vestel, Acer, LiteOn Power, LG, Amtran, Fairchild Semiconductors, Atmel Semiconductors, Wolfson Microelectronics, Analog Devices, GE, ULTRA Electronics, Melexis, IDEAL Heating, SKY TV, Hua Wei, Emerson Power, EE Phones, TCL, SMART Technology, Singapore Technology Kinetics, Etc.

Publications

- CRT Bleed Resistor Reliability (Quality and Reliability Eng International, Apr 86')
- Recognizing the optimum Burn-In period (Quality and Reliability Eng International, May 87')
- Weibull Analysis of Component Failure Data from Accelerated Testing (Reliability Engineering, Sept 89')
- Use of Bayes Theorem and Beta Distribution for Reliability Estimation (Reliability Engineering, Nov 89')

Conference Presentations

- IEEE Conference Paper presentation, San Diego October 2013
- Gold Award for Best Paper at Reliasoft Applied Reliability Symposium, Warsaw, March 2012 (Predicting Warranty FRR using Process Yield Data)
- Gold Award for Best Paper at Reliasoft Applied Reliability Symposium in Singapore, Oct 2010 (Achieving World Class Reliability with LCD TV)
- Gold Award for Best Paper at Reliasoft Applied Reliability Symposium in Berlin, March 2010 (Achieving World Class Reliability with LCD TV)
- Power Supply process optimization using Random Vibration (Submitted to European Symposium of Reliability 1997)
- Planning Early Life Reliability Testing using the 'Hughes' model (European Symposium of Reliability, Nov 94')
- IBM Interplant Technical Liaison presentations (Austin Texas 1988, Fishkill New York1992, Raleigh N.C 1993)

Martin's Blue Chips Clients:

Daewoo Electronics, LiteOn, Astec Power, GE, Bosch Automotive products, Philips, TPV, Vestel, Acer, LiteOn Power, LG, Amtran, Fairchild Semiconductors, Atmel Semiconductors, Wolfson Microelectronics, ULTRA Electronics, Melexis Germany, IDEAL Heating, SKY TV, Hua Wei Telecommunication, Emerson Power, EE Phones, TCL, SMART Technology, Singapore Technology Kinetics, Artesyn Power, Acbel Power, Range of semiconductor manufacturers including Renesas, Toyota, Hyundai Electronics, Fairchild, Atmel, etc) and etc.

ENERGY1
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Energy1 is a sub-division of PETRO1 focus on provide trainings & technical Consultancy services. We have now expanded our horizon of Reliability consultancy in the oil industry to include electronics and have therefore partnered with **Reliability Solutions** to market the total offerings of Reliability Solutions to companies in Southern China, Taiwan and South East Asia. With this partnership we had successfully made an impact to the electronics professional from the top 50 electronics players in the region.

- Vishay Semiconductor
- Celestica ELectronics
- Vteh Communications
- Mattel
- Suzhou Asen Semiconductors
- Freescale Semiconductor
- SMT Technologies
- SONY
- ST Microelectronics
- Flex
- Hayco
- HGST
- Infineon Technologies
- QAV Technologies
- Clarion
- Dyson Manufacturing
- Plexus
- National Instrument
- Premium Sound
- Renesas Semiconductor
- Apple
- Osram
- Sandisk Storage
- Muehlbauer
- Dominant OPTO Technologies
- Finisar Malaysia
- Sanmina System
- Bose System
- Amkor Technology
- EDMI Electronics
- AUO SUNPOWER
- Tridonic

ENERGY1 ELECTRONICS RELIABILITY & PROCESS QUALITY COURSE IN ASIA PACIFIC (MALAYSIA & CHINA)

Comments from past participants:

"The course really applicable to most company. Not only necessarily for, reliability guy only. Designer should know also."
Plexus Manufacturing

"Martin is surely an expert in this field. I would recommend it to others who would need this training."
NI Malaysia

"Instructor credentials and evident in training"
Infineon Technologies

"Good presentation skills and have a lots of experience in this course."
Premium Sound

"Learn a lot of new knowledge "
Clarion

"Im specialist of statistical analysis, I know theory background. However martin can share some points in practical that make me more understand and, find out the way to apply in future"
Sanmina (Thailand)

"Fantastic. Gain a lot of knowledge from the course."
Finisar

"Very good! Definitely learn new things"
Bose System

"Martin is a serious guy and in reliability testing and with his last experience able give better insight and approach for NPD/NPI reliability testing."
Dyson Manufacturing

"Course was informative, new technique and modeling Instructor is very affective"
Sandisk Storage

"Well-versed with the training course and able to learn from its experience"
QAV Technologies

"The instructor have in depth knowledge in Reliability and Management"
Sandisk Technologies

"Very Knowledgeable on the topic and have increased my overall understanding of importance of reliability "
Dominant OPTO Technologies

"Actual cases sharing good for audience. Trainer very knowledgeable in the topic that being addresses "
Amkor Technology

"Good Knowledge on the industry and the needs to improve design for cost effectiveness"
Muehlbauer Technologies

"Simplify complicated reliability subject into practical model for electronics industry"
EDMI Meters

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