

COURSES on the best TOOLS for Reliability Engineering and INTEGRATION of Reliability Programs for Maximum Value

Public and In-House Courses presented by World Class experts.
In-House courses are customized and combined with other courses as required to meet client's goals. Courses cover principals, theory, and applications with lectures/workshops.



COURSES

- 1-5) **Reliability Tools and Integration:**
- 1) for Overall Program - Best "A-Z" course in Reliability
 - 2) in Concept Phase - Goals, metrics, plans
 - 3) in Design Phase - Analyses: Pred, FMEA, FTA, Thermal, DOE, etc
 - 4) in Prototype Phase - Tests: HALT, ALT, RDT, DVT, etc.
 - 5) in Manufacturing Phase - Processes: HASS, HASA, ORT, Tracker
- 6) **Reliability Techniques for Beginners** - Study key concepts: distributions, modeling, predictions, data analysis.
- 7) **Reliability Statistics** - Study sampling, hypotheses, confidence, and DOE.
- 8) **FMECA** - Use Failure Modes Effects and Criticality Analysis to develop Risk Management Programs.
- 9) **CRE Exam Preparation** - Preparation for passing the ASQ Certified Reliability Engineer Exam.
- 10) **CQE Exam Preparation** - Preparation for passing the ASQ Certified Quality Engineer Exam.
- 11) **Design for Reliability (DfR)** - Learn the building block tools for reliability during the concept & design phase, including when/how to use.
- 12) **Design for Manufacturability (DfM)** - Learn what tools are needed to produce great products with high quality.
- 13) **Design for Testability (DfT)** - Learn about Stress-strength and failure of materials and electronics, variation and reliability, Design analysis & more.
- 14) **Design for Warranty Cost Reduction (DfW)** - Introduces a proven warranty event cost model that helps identify warranty cost red. solutions
- 15) **Design for 6 Sigma (DfSS)** - Powerful problem solving methodology aimed at tackling core product development issues
- 16) **Design for 'X' (DfX)** - Learn about the best of "Design for" disciplines.
- 17) **Mechanical Design for IC Packaging** - We shall explore the best tools and techniques to use at the IC Packaging Level
- 18) **Design of Experiments (DoE)** - Includes basic statistics behind a DOE as well as a workshop in which we perform a DOE on a specific product.
- 19) **HALT and HASS Application** - Specifically targeted for those with an education in HALT/HASS to show how to apply techniques on products.
- 20) **Statistics for 6 Sigma** - This hands-on course focuses on the essential statistical tools for implementing your Six Sigma program.
- 21) **Fundamentals of Climatic Testing** - Review the different types of climatic tests—temperature, humidity, altitude, rain, solar, salt/fog, & more
- 22) **Design for Vibration and Shock** - Highlights the different types of vibration tests and different type of equipment and fixtures.
- 23) **Software Design for Reliability** - Highlights "best practices" in S/W Rel. and explains their application & positive impact to each of the development life cycle phases: Concept, Design, Implementation, & Testing.
- 24) **Reality of Pb-Free Reliability** - Looks at Restriction of Hazardous Substances (RoHS) from a reliability perspective, identifying known risks
- 25) **Root Cause Analysis** - Looks at RCA from a system and component level, identifying best tools, 5 Whys approach, 8 Step process, & FRACAS.
- 26) **Statistical Process Control** - Presents valuable tools to assist in evaluating process variations and to make sound decisions based on your data.
- 27) **Innovative Problem Solving** - Looks at advanced problem solving strategies and their application to business and technological systems.
- 28) **Mechanical Design for Reliability** - Learn about FEA, Tolerance/Worst Case Analysis, Probabilistic Design Systems, and Fatigue and Fracture.
- 29) **Applied Data Analysis** - Useful set of statistical tools for both manufacturing operations and analytical tools for research.
- 30) **Design for Safety** - Dramatic savings through creative design practices focusing on inherent product risks early in the design process and on ways to minimize each risk factor.

2010 PUBLIC OFFERINGS

CRE Exam Preparation Course

One night/week for eight weeks, \$1295/seat
Jan 12 - Feb 23, Santa Clara CA
Aug 17 - Sep 28, Santa Clara CA

CQE Exam Preparation Course

One night/week for eight weeks, \$1295/seat
Apr 14 - May 26, Santa Clara CA
Oct 19 - Nov 30, Santa Clara CA

2010 Reliability Symposia

Ops A La Carte and DfR Solutions

are teaming up to give the symposia 3 times this year.

April 19-23 in Santa Clara, California

May 17-21 in Huntsville, Alabama

October 11-15 in College Park, Maryland

TRACK ONE - DfX

- *Design for Reliability (DfR)*: Apr 19, May 17, Oct 11
- *Design of Environment (DfE)*: Apr 20, May 18, Oct 12
- *Design for Manufacturability (DfM)*: Apr 21, May 19, Oct 13
- *Design for Testability (DfT)*: Apr 22, May 20, Oct 14
- *Software Design for Reliability*: Apr 23, Oct 15, am
- *Design for Warranty*: Apr 23, Oct 15, pm
- *Design for Components*: May 21

TRACK TWO - ALT/RCA

- *Best Accelerated Life Tests*: Apr 19-20, May 17-18, Oct 11-12
- *Root Cause Analysis (RCA)*: Apr 21-22, May 19-20, Oct 13-14
- *Design for Mechanical Reliability*: Apr 23, May 21, Oct 15

PRICING AND TERMS

Class Prices: Two day=\$1195, One day=\$695, half day=\$395

Group Discounts: Every 5th registrant is FREE

Unemployed/Employees paying themselves=25% off

Full time students=50% off

All are available via webinar for a 25% discount.

Payment: PO, Check, or Credit Card in advance

IN-HOUSE COURSES

We offer all our courses in-house & fully tailored to your industry, using examples from your company, including workshop exercises

We can even set up to help you solve a problem with the reliability technique we are teaching.

Contact us for In-House pricing

CONSULTING SERVICES

- Set reliability goals with a Reliability Program Assessment
- Estimate a design's reliability with MTBF predictions.
- Establish risks associated with failures using - FMEA
- Maximize product robustness with HALT and HASS
- Understanding Life Limiting Elements with ALT