

A foundation course

# Reliability Enhancement Testing



**TWI, Granta Park  
Great Abington, Cambridge  
25 - 26 June 2008**



Reliability Solutions  
[www.reliability-solutions.co.uk](http://www.reliability-solutions.co.uk)

*An essential foundation course for design,  
quality and manufacturing  
engineers and managers*



Reliability Plus  
[www.reliability-plus.co.uk](http://www.reliability-plus.co.uk)

## What could an unreliable product really cost your company? Your credibility? Your reputation? Your future?

**MARKETS** are demanding cheaper, more reliable products and many manufacturers find that traditional, established procedures and processes are now being questioned. The idea of running months of extensive reliability testing is fast becoming a luxury – and one that few can justify.

**YET** in today's market driven climate you need, even more, to review procedures, examine options and pursue cost-effective solutions that will allow you to stay competitive and profitable, and increase your market credibility.

**RELIABILITY** enhancement is now within everyone's reach. Global customers seek out suppliers whose enhanced reliability performance improves their own market penetration and consolidates their own position – the rewards are substantial for those suppliers ready to meet the new demands.



*Bob Page*

**MUCH** focus is placed on Early Life Reliability Improvement, which is the main issue today in Product Reliability.

**IMMEDIATELY** effect change in your organization in the way in which products are stress tested and failure data analysed.

**KNOWLEDGE** from the seminar will enable you to further develop future improvements in Reliability through controlled experimentation.

[www.reliability-plus.co.uk](http://www.reliability-plus.co.uk)

**HOW** can you share in these rewards?

**JOIN** our two-day foundation course in **RELIABILITY ENHANCEMENT TESTING** and gain a clear understanding of the theory and practice.

**EXPERTS** in their own fields, Martin Shaw, of Reliability Solutions and Bob Page of Reliability Plus present the seminar. They have over 40 years of experience between them in the field of Accelerated Testing and Reliability Improvement.

**WITH** the knowledge and skills acquired at the end of the training program, you will have a high level appreciation of Reliability and Reliability Improvement.

**THE** seminar will provide you with a very thorough understanding of Accelerated Stress Screening and Accelerated Testing and introduce new models to follow in upgrading existing practices.

[www.reliability-solutions.co.uk](http://www.reliability-solutions.co.uk)



*Martin Shaw*

# Course Contents

The two-day seminar covers a wide range of reliability topics, including:

- ◆ Understanding basic Reliability theory and the fundamental statistics involved
- ◆ Accelerated Testing and the wide range of models applied in semiconductor and product level testing
- ◆ Focus on Early Life Reliability and the best methods to induce early life weaknesses in electronic assemblies
- ◆ Understanding the important relationship between Manufacturing Process Yield and Early Life Failure levels
- ◆ Case studies showing the positive effects of focusing on early life reliability improvement
- ◆ Application of Design of Experiments (DOE) in reliability experimentation/improvement
- ◆ Understanding the Weibull distribution and its application in reliability measurement/prediction
- ◆ How to use Highly Accelerated Life Testing (HALT) to enhance design reliability
- ◆ Planning and managing the HALT process
- ◆ Understanding multi-axis vibration table characteristics
- ◆ The principles of screen strengths
- ◆ Using HALT to develop an effective Highly Accelerated Stress Screening (HASS) process
- ◆ Implementing and optimising HASS
- ◆ Introducing Highly Accelerated Stress Audit (HASA)
- ◆ HALT case studies – practical implementations and lessons learned

## METHODOLOGY

A two-day seminar forum with continual interaction while learning.

Class participation is encouraged to ensure the knowledge is fully absorbed and attendees have the ability to apply new learning very quickly.

Training will be power point slide based with several hands-on class workshop examples where students actively participate.



**TWI**  
**Granta Park, Great**  
**Abington, Cambridge**  
**CB21 6AL**

## WHO SHOULD PARTICIPATE?

Engineers and Managers  
Reliability, Quality, Product, Process, R&D, Customer Quality, etc

**COURSE FEE**  
£675\* per person plus VAT

\* Less 5% for "early-bird" booking /payment before 30 May 2008  
Less 20% for more than one person from the same organisation

**Booking Form: Reliability Enhancement Testing**  
 TWI, Granta Park, Great Abington, Cambridge CB21 6AL  
 25-26 June 2008

COMPANY NAME:		CONTACT PERSON:	
ADDRESS:			
POSTCODE:			
TELEPHONE NUMBER:		FACSIMILE NUMBER:	
DELEGATE 1, NAME:		JOB TITLE:	
TEL/EXTENSION:		E-MAIL ADDRESS:	
DELEGATE 2, NAME:		JOB TITLE:	
TEL/EXTENSION:		E-MAIL ADDRESS:	
DELEGATE 3, NAME:		JOB TITLE:	
TEL/EXTENSION:		E-MAIL ADDRESS:	
<b>Seminar total @ £675 per head = £</b>		<b>Less applicable discount* = £</b>	
<b>VAT at 17.5% = £</b>		<b>Total amount = £</b>	
<b>Payment methods</b>			
1. Cheque payable to :	Reliability Solutions		
2. BACS transfer to:	The Royal Bank of Scotland	10 St. James Terrace, Kilmacolm PA13 4HD	A/C no. 00127575, sort code 83-23-20
Purchase order no:		Pro forma invoice required? (Y/N)	
<b>Payments must be received by 17 June 2008</b>			
<b>Transfers and cancellation</b>			
• Bookings may be cancelled up to 14 days in advance of the seminar.		Email or fax this form to:	Reliability Solutions
• Your fee will be refunded less a 5% administration charge			18 Hillside, Houston, Renfrewshire PA6 7NT
• If you cancel within 14 days of the seminar you may only transfer your booking to a colleague from your organisation. No refund available.		Email: martinshaw1@compuserve.com	cc: twi@reliability-plus.co.uk
		Fax: 01505 382769	
<b>* Discounts</b>		<b>If you have any questions contact:</b>	
Less 5% for a booking made and <b>payment received</b> by 30 May 2008		Reliability Solutions	07967 144 097
Less 20% per head for more than one person from the same organisation		Reliability Plus	01453 878540