

# *Conformal Coating Applications, Inspection Rework & Quality Control Workshop*

*Wednesday 21<sup>st</sup> April*

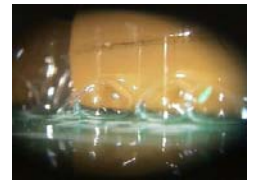
ITRI innovation, St Albans

*Conformal coating circuit board assemblies was a process used only for high reliability military and aerospace products. Today many products even those in the consumer industry benefit from the use of coatings*

*Coatings provide a level of protection, improved performance and in some cases, a cost effective mechanical support, even for consumer products like mobile phones.*

*Coating was a process to be avoided due to the chemicals used, a process that was messy and not well understood. Over the last few years that has all changed.....*

*Bob Willis & Wayne Lam*



ASKbobwillis.com



## Workshop outline:

The use of conformal coating has provided benefits to industry for many years either in the high reliability market sector, where products have to deal with extreme environmental conditions or simply in use in consumer applications. The use of coatings is seen in different industries like telecommunications, automotive and consumer products which have benefited from the use of selective coatings but for different reasons.

This workshop will provide a simple guide to the use of coatings, their application and process, product benefits, inspection and quality control. A practical session will also allow delegates to examine coated boards using different materials and inspect the coating application.

Each delegate will receive a FREE set of Conformal Coating inspection and quality control wall charts which are ideal for inspection, testing and fault finding in the process.



## Who should attend this workshop?

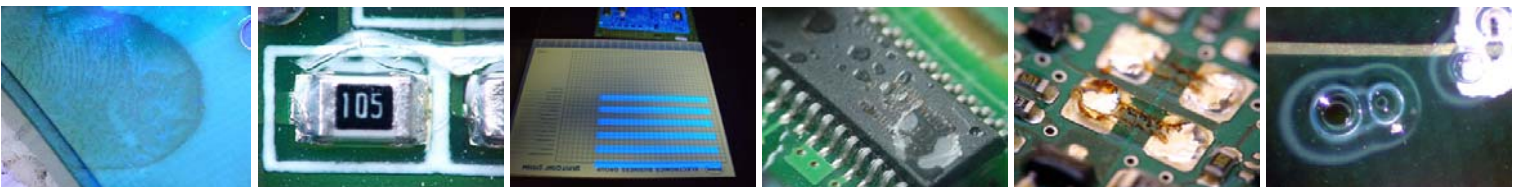
This event is ideally suited to design, production and quality engineers looking at the implementation of coating or improvements in their process and for those people considering contracting out a coating operation to a coating provider. It's vital to subcontractors to be up-to-date with coating materials and equipment plus requirements for future customers.

## Workshop topics include:

- Why Conformal Coat?
- Clean or No Clean?
- Coating Material Options
- Coating Process Options
- Cost of coating assemblies
- SIR and cleanliness testing
- Cleanliness testing methods

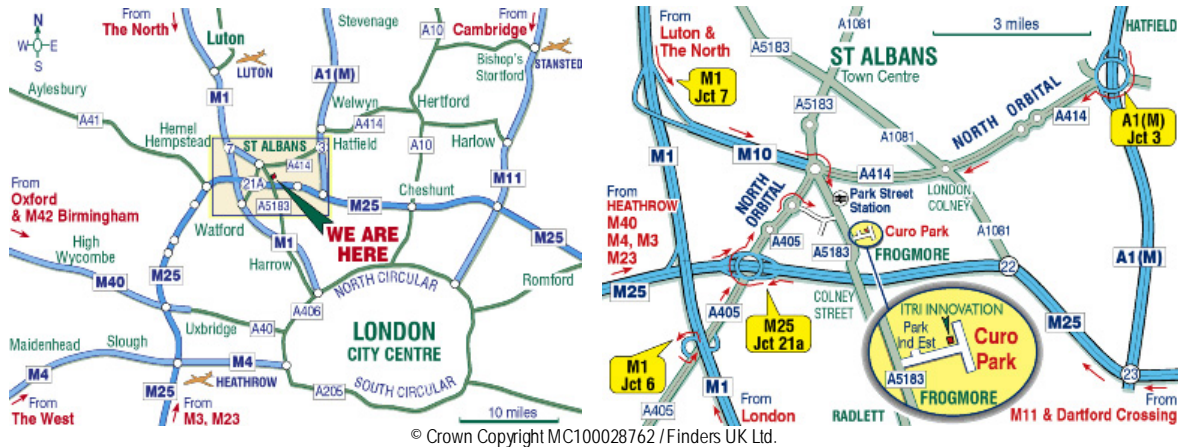
- Reliability of Coating
- Testing & Evaluation of Coatings
- Correct design for coating
- Masking options and methods
- Inspection & Quality Control of Coating
- In-house or Contracting Services
- Inspection of coatings & methods
- Rework & repair of board assemblies

**Practical session includes rework, inspection and testing of coatings**



## Workshop location:

The workshop will be held at ITRI, Frogmore, St Albans, recognised worldwide for its extensive laboratory services and its engineering staff.



## Workshop instructors:

**Bob Willis** currently operates a training and consultancy business based in England and has one of the largest collections of interactive training CDs in the industry. Although a specialist in implementing lead-free manufacture Bob has provided worldwide training and consultancy in most areas of electronic manufacture and design. This is based on working for OEM and contract assembly, printed board manufacture and environmental test facilities. This recently earned him the *SOLDETEC Global Lead Free & SMTA International Leadership Award* plus *IPC Committee Award* for his contribution to industry. Bob is a Fellow of the Institute of Circuit Technology and awarded *Life Long Vice President of the SMART Group*



**Wayne Lam** graduated from the University of Bath with a Degree in Materials Science and Engineering, before completing a Masters in Environmental Science. His Doctorate from the School of Engineering and Design, at Brunel University, investigated the wear resistance of tin and tin alloy coatings. At present, he is a Professional Member of the Institute of Materials, Minerals and Mining. Wayne is now the Laboratory Manager, working closely with the Research and Marketing Divisions of the organisation, and leads a committed and driven team aimed at delivering a high quality service to ITRI's customers.



Supported by



# Workshop Booking Form

**Cost per Workshop Session: £185 per delegate + VAT**

Price includes refreshments, inspection posters, workshop notes on CD-ROM for each attendee

## Return Booking Form to:

Bob Willis  
Electronic Presentation Services  
2 Fourth Avenue  
Chelmsford  
Essex, CM1 4HA

Tel: (+44) 01245 351502  
Fax: (+44) 01245 496123

I would like to book .....place(s) on the following workshops:

- Wednesday 21<sup>st</sup> April Conformal Coating Application Workshop 9.30 am - 4.30 pm**
- Wednesday 26<sup>th</sup> May Package On Package PoP Workshop 9.30 am - 4.30 pm**
- Wednesday 9<sup>th</sup> June Printed Circuit Board Inspection Workshop 9.30 am - 4.30 pm**
- Thursday 10<sup>th</sup> June Practical Failure Analysis Workshop 9.30 am - 4.30 pm**

Payment is due at time of course booking and may be made by Visa/Mastercard by completing the mandate below or by cheque made payable to **Electronic Presentation Services**. A pro forma invoice can be provided by fax if required, on receipt of a company purchase order. Booking confirmation, hotel locations and map/directions to workshop location will be provided on receipt of payment.

### Booking conditions:

Full refund if cancellation notification received more than 10 working days before course date, subject to £20 administration fee

Refund of 50% if cancellation notification received 6-10 working days before course date, subject to £20 administration fee

No refund if cancelled within 5 working days before course date. However, an alternative delegate may be nominated.

We reserve the right to cancel the seminar, a full refund of the course fee or the opportunity to attend the seminar if re-scheduled

Company PO Number for Proforma Invoices: \_\_\_\_\_

Name: \_\_\_\_\_ Job Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Postcode: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Second Delegate: \_\_\_\_\_ Job Title: \_\_\_\_\_

Email: \_\_\_\_\_

**Please provide details of additional delegates separately with this booking form**

To pay by Visa/Mastercard please also complete the following and fax booking form to **(+44) 01245 496123**

Please ensure all sections are completed fully in order to comply with credit card companies' requirements to validate transactions

Visa/Mastercard no: \_\_\_\_\_ Card expiry date: \_\_\_\_\_

Card security code (3 digits printed on card signature strip): \_\_\_\_\_

Name (as printed on card): \_\_\_\_\_ Signature: \_\_\_\_\_

Cardholder's statement address: \_\_\_\_\_

Postcode: \_\_\_\_\_

*For details of our on site training workshops, training video and interactive CD-ROMs visit [www.bobwillis.co.uk](http://www.bobwillis.co.uk) or [www.leadfreesoldering.com](http://www.leadfreesoldering.com)  
On line analysis and consultancy is available at [www.ASKbobwillis.com](http://www.ASKbobwillis.com)*

PCode: ITRI