

# THE GOOD, THE BAD, AND THE IMPROVEMENTS IN CDM ESD TESTING • ONLINE

**MAY 25, 2010 • 11:00 A.M. EASTERN TIME**

## **THE GOOD, THE BAD, AND THE IMPROVEMENTS IN CDM ESD TESTING**

May 25, 2010 • 11:00 a.m. Eastern Time • Course length - one hour.

**Instructor: Leo G. Henry, ESD TLP Consultants, LLC**

CDM ESD Stress Testing of ICs has changed and improved since CDM standards were first published in 1995 (JEDEC) and 1999 (ESDA). The method on which these standards are based was introduced in 1989. The purpose of this Webinar is to present these improved changes and at the same time teach the basics of good CDM stress testing of ICs as required by the CDM standard. Minimum equipment requirements to produce an adequate CDM waveform will be discussed. The need for good and proper equipment/tester qualification, calibration and periodic verification will be presented. It will be shown how the CDM stress testing requirements combined with proper stress testing procedures will lead to good and reliable qualification of product. Finally, improvements associated with the most recent releases of 2 documents ( the ANSI/ESD CDM-5.3.1 standard and the JEDEC- CDM JESD-22C-101E- standard) will be presented and the commonality between the 2 documents will be emphasized.

### **About the Instructor**

Leo G. Henry is presently an ESD/TLP consulting engineer. He has worked in the electronics industry for over 26 years and in the field of ESD for over 20 years. Over the years, LeoG has worked in several engineering capacities/positions for several major companies having spent his first 14 “electronic” years at Advanced Micro Devices as a member of the Engineering Technical Staff.

Leo G. received both his B.Sc. and M.Sc. degrees in Physics with minors in chemistry and mathematics from the University of the West Indies. He received both his MS and Ph.D. degrees in Materials Science and Engineering from the University of California (UC Berkeley).

Dr. Henry has taught Physics at the University of West Indies, Mat. Sci. & FA Principles at SJ State University, and for the past 13 years, taught both EOS & ESD principles & testing at various Conferences and Symposiums including Silicon Valley’s ESDiscovery, the ESD Symposium and ASM’s ISTFA. Dr. Henry has presented at conferences and published (co-authored) many papers on ESD, EOS, TLP, FA and Materials Science. His technical expertise also includes system level testing using the IEC ESD standard, teaching several ESD classes in both the Program Manager and Device Design Certification disciplines, teaching at the University level and tutoring to high school students in Math, Physics and Chemistry.

Dr. Henry is a senior member of the IEEE, a member of ASM/EDFAS and BoD member of SiVa society. Leo G. is a member of WG-5.0 for Device Testing, serves on TPC , TAS, the ESDA’s BoD. As Sr. VP of the ESDA, he has responsibility for Marketing & Communications, Human Resources, Facility Certification and the ESDA Head Quarters.

### **Equipment Requirements**

This course uses a multi-way audio broadcast over the Internet. You will need a soundcard and speakers (a headset is recommended) installed to hear the presenter during the course.

**Attendees can send questions to the presenter via text chat, other interaction is not available.**

ESD Association • 7900 Turin Rd Bld 3 • Rome NY 13440  
Phone 315-339-6937 • Fax 315-339-6793  
info@esda.org • www.esda.org



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## Registration Form

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

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

Street: \_\_\_\_\_ City: \_\_\_\_\_

State/Province: \_\_\_\_\_ Country \_\_\_\_\_ Zip/Postal Code: \_\_\_\_\_

Is Address (please circle the one that applies) Home or Company

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

<b>Cost</b>	members	non-members
	\$95.00	\$140.00

**Registration is requested by May 4th to guarantee course scheduling  
Registrations will be accepted until May 25th**

Refunds will not be given for cancelations. In the event of a cancelation, credit will be given to attend a different online class.

## Payment Information

Payment is required at time of registration. Only checks drawn in U.S. currency on a U.S. bank that is a member of the Federal Reserve will be accepted; make checks payable to ESD Association. Visa®, Mastercard®, Discover® and American Express® are accepted.

Amount enclosed \$ \_\_\_\_\_  Check  Credit Card

Credit card type: Visa® Mastercard® Discover® American Express®

Credit card number: \_\_\_\_\_ Expiration date: \_\_\_\_\_

Name on card: \_\_\_\_\_ Security code: \_\_\_\_\_

Cardholder's signature: \_\_\_\_\_

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