Tutorial Monday 8:00 – 9:30 AM

Exploring Relation of ESD and EMC: Tests, Events to Damage, Failure Types, and Co-Design Approaches

Instructor: Alan Righter, Analog Devices

This tutorial will explore the events of EMC and ESD as they relate to test methods, damage signatures from the different tests in ICs, and co-design approaches addressing EMC and ESD. First, the various tests will be described and compared to one another. Next common damage signatures for each type of event will be described. With this information, the concept of co-design can be explored to relate to the type of event and the damage signature the co-design is designed to protect. Some co-design tradeoffs may be needed in the consideration of what events are most likely / important in a particular application, but could conflict in co-design, and these will be described.

Alan Righter has been with Analog Devices since 1997 and currently a Senior Staff ESD Engineer in Santa Clara, CA, involved in customer ESD and EOS (EIPD) return resolution, manufacturing ESD control, and IC design / consulting. From 1984 to 1997, Alan worked at Sandia National Laboratories, Albuquerque, NM and received his PhD in Electrical Engineering from the University of New Mexico in 1996. Alan has been with the EOS/ESD Association also since 1997 and currently is their 2020-21 Association President, and also is ESDA co-chair of the Joint ESDA/JEDEC CDM (Charged Device Model) Standard Working Group responsible for the ANSI/ESDA/JEDEC JS-002 CDM testing standard.