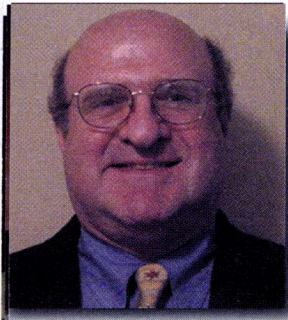


I really have appreciated your very responsive comments and reports in the past that let others in our Society know the great works that you all are doing in the Technical Committees (TCs). Steve Adam has had an opportunity to talk with many of you recently and has appreciated your comments.



At the recent AdCom meeting, Bob Rassa proposed a new TC, TC-35, "Net-Centric Operations Interoperability." We continue to expand our horizons but also still need active participation in our existing TCs. If you know of someone interested in chair an open TC, please ask them to contact Steve or me.

In response to an earlier article, I received the following reply from Jon Barth, an IEEE Life Member, on the importance of standards. He has kindly consented to let me share excerpts from his reply with you concerning his experiences with updating Standards.

When I began to work with the ElectroStatic Discharge Association (ESDA) standards groups I assumed that the test equipment used to qualify today's enormously complex ICs were based on good measurements of the real ESD threat. Boy was I wrong!

After much research of paper from five to 20 years of age and IEEE publications, I learned that the assumption made on measurements taken in film with 500-MHz band width scopes had been quite distorted to allow testers to be made for high pin count ICs. The switching matrix distorted the subnanosecond risetime pulse so badly they simply changed the risetime specification to 10 nS so test equipment could be made.

This was not a problem many years ago when bipolar ICs worked at 15 V and operated at 50 MHz. Today's CMOS ICs operate at about 1 V and 1 GHz or more so the old testers are causing good parts to fail. ESD designers have to qualify their parts to specifications their customers demand, and the standards writing bodies take years to make revisions.

As a measurement guy associated with these silicon design guys, I have found it very difficult to impress

upon them the importance of measurements. They certainly accept their measurement requirements of the existing testers with tolerances of $\pm 50\%$ in some cases. My recent measurements of the real threat have identified simple electrical parameters that have been missed since the beginning. There seems to be a great reluctance to measure the real threats with the marvelous technology available today. Where one low frequency scope photo sometimes took hours (I am 67 so I understand this problem intimately) and no one chose to digitize it for analysis of the true waveform, which should be simulated today, ESD testers are missing some important parameters and include some "noise" parameters that no one observed previously.

At the next ESDA meeting, in September, I will insist that measurements be given a much higher priority for any "simulation" test equipment for which we attempt to produce standards.

Thank you for these articles, I need some backup to give credence to my insistence that without modern measurements, we cannot produce standards needed for this totally pervasive semiconductor industry. Although high-speed time domain measurements are not easy, and instrumentation for it is very specialized, it can be done if they will choose to look outside their narrow cubicle. Their intense concentration on submicron silicon technology has prevented them from spending any serious time investigating today's measurement technology. I don't want to call the ESD test equipment incestuous, but the effect of talking among themselves and ignoring my pleas has prevented innovations in their testing and standards. If they don't change their view soon, someone else will have to do it for them, or to them.

I thought you may want to hear of an EE horror story in trying to convince an industry that measurements of the actual event made 20 years ago must be revisited with modern instrumentation if the standard is to be improved.

Any information you have on Standards Committees and good quality measurements would be much appreciated.

OK, now considering this very timely story from Mr. Barth, the IMS Society really needs someone to represent us in the Standards area! Here is your opportunity to really make a contribution to the Society, and your industry.

I look forward to seeing you at IMTC'05 and at our committee meeting. Once again, please contact Steve (s.adam@ieee.org) or me (rhochberg@ieee.org) with your comments, suggestions, ideas, assistance, and volunteering.