

October 23-25, 2019

**Canmax, 99 Shuangma Street,
Suzhou Industrial Park, Jiangsu, Suzhou, China**

October 23

Grounding – Variations, Concepts, Nuisances, Equipment & Troubleshooting

Dave Swenson, Affinity Static Control Consulting; John Kinnear, IBM

Grounding for ESD control seems so simple, yet many times issues arise after a grounding strategy is implemented. This class will cover variations in grounding approaches, concepts to consider when employing a ground system, nuisances and how to troubleshoot them with the correct equipment.

The afternoon session of this class will cover demonstrations and practical applications of the class concepts. This provides an invaluable opportunity to interact with the instructor and equipment to fully learn in a hands-on process.

October 24

Electrical Fields - Practical Considerations for the Factory (Morning)

Dave Swenson, Affinity Static Control Consulting

ANSI/ESD S20.20 recommends that process essential insulators with a measured electrical field strength of >2000 volts at 1 inch should be kept a minimum of 12 inches from ESD susceptible items. In addition, for close proximity or contact, the standard requires that insulators have an electric field of <125 volts at 1 inch. Just what are the practical considerations of this statement? What is the size of a charged object that imposes a risk? The goal of this tutorial is to show, by demonstration, the field strength and resulting induction ability from different sized objects. The audience should gain a practical perspective of size and distance as related to electrical fields an induction and be able to relate the information to their own factory situations.



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October 24 (cont.)

Practical Applications of Ionization (Afternoon)

Dave Swenson, Affinity Static Control Consulting

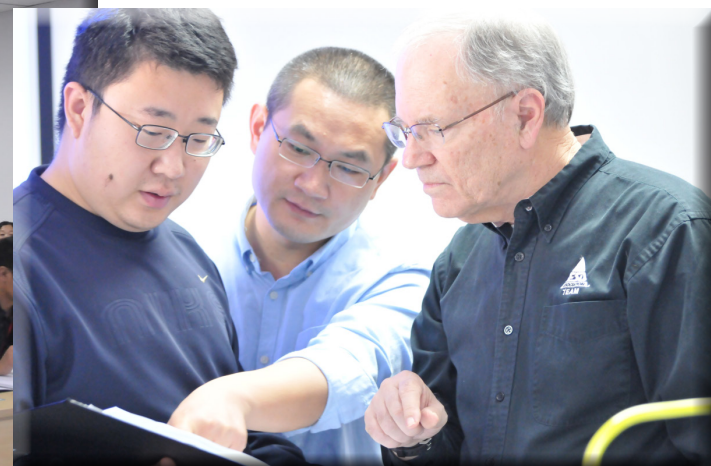
Ionization is a powerful tool in the toolbox of an ESD control practitioner. Our half-day tutorial, "Ionization Issues and Answers for the Program Manager" goes into depth about the physics of ionization, and general applications. This tutorial builds on the fundamentals and provides added information about applications of ionization that go beyond those mentioned in the original tutorial. The introduction part of this tutorial begins with a review of the physics of ionization before entering the discussion of applications. Ionization is used in a wide variety of industrial applications to reduce charge on plastic and paper films, extrusion processes, pharmaceutical and other powders, petrochemical processing, printing and graphic arts, as well as the wide variety of electronic component and equipment production processes. Numerous demonstrations will help demonstrate the power of ionization to reduce charges on materials. In addition, it is necessary to understand the limitations of ionization and recognize where it is useful and where it is not.

October 25

Advanced Process Assessment

John Kinneer, IBM

If ANSI/ESD S20.20 is followed, the most sensitive device that can be handled is 100 volts Human Body Model and 200 volts Charge Device Model. With device sensitivities decreasing, some outside the scope of ANSI/ESD S20.20, how do you really know what your process is capable of handling. In this presentation/workshop advanced measurement techniques will be discussed and demonstrated on how to determine how "good" the process is, what it is capable of and useful techniques on how to troubleshoot a process. These results will be essential to prove the ESD controls in a process not only comply with ANSI/ESD S20.20 and determine what the process can safely handle.



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About the Instructors:



David E. Swenson retired in 2003 after 35 years of service from 3M. While at 3M, he had responsibility for new packaging material development and application, training of 3M personnel worldwide, and providing application assistance to users of static control products globally with particular emphasis on Asia Pacific and Japan. Dave and his wife Geri established a new company, Affinity Static Control Consulting, LLC in 2003.

Dave has been a member of EOS/ESD Association, Inc. since 1984 and has served in many capacities including 1997 Symposium general chair and president of the Association in 1998-1999 and again in 2008-2009. He was re-elected to the board of directors for a fifth term from 2014 to 2016, and served as membership and volunteer activity business unit manager. Dave was presented with the highest award of EOS/ESD Association, Inc., the "Outstanding Contributions Award" in 2002, the Standards Committee "Joel P. Weidendorf Memorial Award" in 2004, and the Association "Edward G. Weggeland" Memorial Award. Dave also serves as treasurer and information liaison for the Texas local chapter of EOS/ESD Association, Inc. He is a member of the Electrostatic Society of America, the UK Institute of Physics, and is a US Expert to IEC TC101, Electrostatics. In addition, he is the convener of joint working group 13 between TC101 and TC40 (Capacitors and Resistors).



John Kinnear is an IBM senior engineer specializing in process & system technology, and facility certification in accordance with ANSI/ESD S20.20. He has a BS degree from University of Buffalo and a MS degree from Syracuse University. John is well known globally for his technical contributions to national and international standards. He has been the IBM ESD site coordinator for the Poughkeepsie site since 1989. He is past chairman of the IBM inter-divisional technical liaison committee for ESD protection and is an important member of his company's committee to develop and implement the ESD corporate program for IBM. John has coordinated the testing of large mainframes for compliance to EMC, safety, environmental, shipping, and volatile organic emission standards. He has also been the lead engineer on testing large mainframe systems to EMC emissions and immunity standards for FCC, CE Mark, VCCI, and other national requirements. As a member of EOS/ESD Association, Inc., since 1990, John has served in several standards development committees as well as association management positions. John is the appointed technical adviser to the United States National Committee/IEC technical committee 101, where he represents the United States to the International Electrotechnical Commission (IEC). In this position he assisted in the evolution of international ESD standards and supports international adoption of ANSI/ESD S20.20. As chair of the ESDA's facility certification (ANSI/ESD S20.20) development program, John played major roles in the program's development and industry launch. In particular, John coordinated the initial development of lead assessor training, ISO registrar certification, and witness audits. John has served in every EOS/ESD Association, Inc. officer's position, including vice president, senior vice president, and president. He is the past chairman of the EOS/ESD Symposium technical program committee and past general chairman of the 2004 EOS/ESD Symposium. For his contributions to EOS/ESD Association, Inc., John was presented with the outstanding contribution award in September 2006.

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First Name: _____ Last Name: _____

Company Name: _____

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

Phone: _____ E-mail: _____

- October 23: Grounding – Variations, Concepts, Nuisances, Equipment & Troubleshooting** \$510/Non-Member \$610
- October 24: Morning- Electrical Fields - Practical Considerations for the Factory Afternoon - Practical Applications of Ionization** \$510/Non-Member \$610
- October 25: Advanced Process Assessment** \$510/Non-Member \$610

Cancellation & refund requests will be honored only if received in writing no later than September 23, 2019, and are subject to a \$50 fee. Any other approved dispositions will also be assessed a \$50 fee.

Register Online: <http://www.cvent.com/d/s6q663>

Accommodations:

Hilton CNY 830/night

Genway International CNY 500/night

Atour Hotel (Qingjian Lake) CNY 380/night

The cooperate account we have in Double-tree is 113120308, please use it for room reservation.

Other forms of payment Contact:

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Setting the Global Standards for Static Control!

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