

EOS/ESD Manufacturing Symposium in Malaysia

Penang Skills Development Centre

1 Jalan Sultan Azlan Shah, 11900 Bayan Lepas, Pulau Pinang, Malaysia

October 14th-17th 2019

October 18th Program Manager Exam (optional) Co-Sponsor



- The ANSI/ESD S20.20 Standard and official ANSI/ESD S20.20 Facility Certification Program was developed and is maintained by EOS/ESD Association, Inc.

- The ESD Program Manager Professional Certification was developed and is maintained by EOS/ESD Association, Inc.

- EOS/ESD Association, Inc. instructors who developed the ANSI/ESDA and IEC ESD Standards bring you today's current information and developments.

The EOS/ESD Association is organizing the EOS/ESD Manufacturing Symposium Malaysia. The EOS /ESD Manufacturing Symposium in Malaysia is focused on discussing issues and providing answers to electrostatic discharge in electronic production and assembly.

Management Chair:
Junjun Li, IBM Corporation

Local Chair/co-Chair:
Marcus Koh, Everfeed Technology Pte Ltd
Bernard Chin, Qorvo



2019 EOS/ESD Manufacturing Symposium China

Sponsored by:



Setting the Global Standards for Static Control!

EOS/ESD Association, Inc. 7900 Turin Rd., Bldg. 3 Rome, NY 13440-2069, USA

PH +1-315-339-6937 • Email: info@esda.org • www.esda.org



EOS/ESD Manufacturing Symposium in Malaysia

**Penang Skills Development Centre
October 14th-17th 2019
October 18th Program Manager Exam (optional)**



EOS/ESD Association, Inc. brings ESD Program Manager Certification to Asia!

Professional Program Manager Certification ensures the understanding of the standard practices and problem solving techniques used to create an ESD protection program in the workplace.

<https://www.esda.org/certification/eosesd-association-professional-program-manager/>

Attend 3 face to face courses

1. ESD Basics for the Program Manager
2. How To's of In-Plant ESD Auditing and Evaluation Measurements
3. ESD Program Development & Assessment (ANSI/ESD S20.20)

Courses are offered at annual EOS/ESD Association events in Asia

Attend 7 online courses

1. Cleanroom Considerations for the Program Manager
2. Ionization Issues and Answers for the Program Manager
3. System Level for the Program Manager
4. Packaging Principles for the Program Manager
5. ESD Association Standards Overview
6. Device Technology and Failure Analysis for the Program Manager
7. Electrostatic Calculations for the Program Manager

Attend online-anytime!

Pass ESD Professional Program Manager exam

**Offered for the 1st time in Malaysia!
October 14th~18th, 2019
www.esda.org**



EOS/ESD Association, Inc.
7900 Turin Rd., Bldg. 3 Rome, NY 13440-2069,
USA PH +1-315-339-6937 • Email: info@esda.org • www.esda.org



Everfeed Technology Pte Ltd
2 Tuas Link 1 Singapore 638590
PH +65 68631488, Email: info@everfeed.com.sg
www.everfeed.com.sg www.esda-asean.com

Day 1	Day 2	Day 3			Day 4			Day 5
ESD Basics	How to's in plant audit & measurement	S20.20 Day 1	Technical Presentation & Talk	Exhibition	S20.20 Day 2	Technical Presentation & Talk	Exhibition	PrM Exam
	5:30-7pm Calculation Review				5:30-7pm PrM Review			

Setting the Global Standards for Static Control!

EOS/ESD Association, Inc. 7900 Turin Rd., Bldg. 3 Rome, NY 13440-2069, USA

PH +1-315-339-6937 • Email: info@esda.org • www.esda.org



EOS/ESD Manufacturing Symposium in Malaysia

Penang Skills Development Centre October 14th-17th 2019

October 18th Program Manager Exam (optional)

FC100: ESD Basics for the Program Manager

OCTOBER 14, 2019 9:00 AM - 5:00 PM

Ron Gibson, Advanced Static Control Consulting

Certification: PrM

This tutorial provides the foundation material for understanding electrostatics and ESD and their role in the manufacturing and handling of ESD sensitive devices. The fundamental properties of charge, electric fields, voltage, capacitance, and current are discussed with a view towards understanding key electrostatic phenomena and electrical processes. These include charge generation and decay, material properties, and induction. An overview of device failure mechanisms is presented, including how these models impact ESD control programs. Finally, the course provides an overview of ESD control procedures during handling and manufacturing and an overview of ANSI/ESD S20.20 program requirements. This full day course is required for those in-plant auditors and program managers who are working toward professional ESD certification. The presentation includes many in-class demonstrations, videos, and animated slides. Some sample topics covered in this course are:

- Definitions and relationships among important electrical and mechanical properties
- Causes of charge generation and decay
- Field effects and voltages
- Role of capacitance in ESD ($Q=CV$)
- Overview of key measurements including common pitfalls of some measurements
- Review of ESD failure models
- Understanding and demonstrating electrostatic induction
- Utility and limitations of air ionization
- Basic goals of ESD controls
- Properties of effective ESD control products and materials
- Overview of ANSI/ESD S20.20 ESD program development requirements

FC101: How To's of In-Plant ESD Auditing and Evaluation Measurements

OCTOBER 15, 2019 9:00 AM - 5:00 PM

Ron Gibson, Advanced Static Control Consulting

Certification: PrM

This program reviews the evaluation and periodic verification (audit) measurement procedures for the technical requirements specified in the ANSI/ESD S20.20 ESD program development standard. Detailed explanation of instruments, fixtures, and accessories function and usage are provided. Then, the details of "How to" measure are explained and demonstrated. Measurements include those listed in Table 1: Grounding/Equipotential Bonding Requirements; Table 2: Personnel Grounding Requirements; and Table 3: EPA/ESD Control Items. These recommended measurement procedures confirm the proper operation and use of ESD control products and materials selected as part of a facility's S20.20 ESD control program.

Some sample topics covered in this course are:

- ANSI/ESD S20.20 Technical Control Requirements
- Program Manager's Approach to Instrumentation and Applications
- Testing Ground Circuits and Assessing Connections
- Essential Resistance Measurement Procedures and Concerns
- Electrostatic Field and Voltage Measurements
- Personnel Grounding Considerations vs. ESD Control Points
- Product Installation Baseline Measurements

Evaluation, Acceptance, and Audit Procedures for: Ground Systems, Floors, Worksurfaces, Equipment, Personnel Grounding, Garments, Materials, Production Aids, Packaging, and Ionization Devices

Electrostatic Analysis Measurements including Worksurface Suppression, Footwear/Flooring, and Ionization Decay

Setting the Global Standards for Static Control!

EOS/ESD Association, Inc. 7900 Turin Rd., Bldg. 3 Rome, NY 13440-2069, USA

PH +1-315-339-6937 • Email: info@esda.org • www.esda.org



EOS/ESD Manufacturing Symposium in Malaysia

Penang Skills Development Centre

October 14th-17th 2019

October 18th Program Manager Exam (optional)

FC340: ESD Program Development and Assessment (ANSI/ESD S20.20)

OCTOBER 16-17, 2019 9:00 AM - 5:00 PM

John T. Kinnear, IBM Corporation; Ron Gibson, Advanced Static Control Consulting

Certification: PrM

This seminar provides instruction on designing and implementing an ESD control program based on ANSI/ESD S20.20. The course provides participants with the tools and techniques to prepare for an ESD facility audit. This two-day course is an ESDA certification requirement for in-plant auditors and program managers who are working toward professional ESD certification.

The following topics are covered in this course:

- Overview of ANSI/ESD S20.20
- How to approach an assessment
- Administrative elements
- ESD program assessment
- ESD program techniques for different applications
- Technical elements
- Overview of the assessment process
- The audit checklist and follow-up questions

It is recommended that the ESD Program Development and Assessment (ANSI S20.20) be taken after the certification candidate has taken most of the other program manager related tutorials.

OCTOBER 18

Optional Program Manager Exam



Setting the Global Standards for Static Control!

EOS/ESD Association, Inc. 7900 Turin Rd., Bldg. 3 Rome, NY 13440-2069, USA

PH +1-315-339-6937 • Email: info@esda.org • www.esda.org



EOS/ESD Manufacturing Symposium in Malaysia

Penang Skills Development Centre October 14th-17th 2019 October 18th Program Manager Exam (optional)

About the Instructors:



Ron Gibson is the president of Advanced Static Control Consulting (ASCC), which was founded in 2010. ASCC provides consulting, ESD material and product qualification, and develops ESD training programs for clients. ASCC has been endorsed by the ESD Association as a third party service provider for the training and certification of individuals to TR53. From 1994 to 2010, Ron was the corporate ESD program manager for Celestica International, Inc. and was responsible for the ESD control programs at all of Celestica's factories worldwide. From 1979 to 1994, Ron worked for IBM. Ron co-authored IBM's initial factory ESD standards. Ron has been a member of EOS/ESD Association, Inc. (ESDA) since 1988, and has served as an officer in the positions of president, senior vice president, vice president, secretary, and treasurer. He has also served as chairman of the ESDA Standards Committee (STDCOM) for over 10 years and was the first chairman of the ESDA certification business unit. Currently, Gibson is the chair of the Facility Certification committee that is responsible for certifying facilities to ANSI/ESD S20.20. Gibson is an ESDA certified instructor for the program manager certification program, and is a certified Chief ESD coordinator for the Reliability Center of Japan.



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.

Setting the Global Standards for Static Control!

EOS/ESD Association, Inc. 7900 Turin Rd., Bldg. 3 Rome, NY 13440-2069, USA

PH +1-315-339-6937 • Email: info@esda.org • www.esda.org



EOS/ESD Manufacturing Symposium in Malaysia

Penang Skills Development Centre October 14th-17th 2019 October 18th Program Manager Exam (optional)

First Name: _____ Last Name: _____

Company Name: _____

Street: _____ City: _____

State/Province: _____ Country _____ Zip/Postal Code: _____

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

Phone: _____ E-mail: _____

Tutorial Selection

- Day 1 ESD Basics for the Program Manager* \$510 USD/ non-member \$610 USD
- Day 2 How To's of In-Plant ESD Auditing and Evaluation Measurements* \$510 USD/
non-member \$610 USD
- Day 3 & 4 ESD Program Development & Assessment (ANSI/ESD S20.20)* \$1,510 USD/
non-member \$1,610USD
- Day 5 Professional Program Manager Certification Exam
(Optional October 18, 2019) \$80 USD

NOTE: You must initiate an official file in your name at EOS/ESD Association, Inc., pay the \$50 USD filing fee, and complete all pre-requisite courses to be eligible to take the exam.

Symposium

- Day 3 & 4 Symposium: Technical Presentation, Talk, and Exhibits* \$800 USD

The EOS/ESD Association, Inc. offers a fifty percent discount for full-time students. Proof of enrollment required. Student fees apply only to symposium or tutorial registration and do not apply to exclusive 10 course bundle for Malaysia event.

* Day 1, 2, 3, & 4, Eligible for HRDF claims under the Kim Bantuan Latihan (SBL) Scheme, subject to prior application to HRDF by the employers/companies.

Exclusive 10 course bundle for Malaysia event Certified Program Manger Certification*

For the exclusive bundle price, payment MUST be made before September 15th, 2019.

- 3 face to face courses: ESD Basics, How To's and S20.20 (Days 1, 2, & 3) \$5,000 USD
- 7 Online courses: (Class links provided upon payment)
 - Cleanroom Considerations for the Program Manager
 - Ionization Issues and Answers for the Program Manager
 - System Level for the Program Manager
 - Packaging Principles for the Program Manager
 - ESD Association Standards Overview
 - Device Technology and FA Overview
 - Electrostatic Calculations for the Program Manager



Register Online at: <http://www.cvent.com/d/m6qjyt>

Alternative payment: contact Everfeed Phone: +65 6863 1488 E-Mail: info@everfeed.com.sg

Setting the Global Standards for Static Control!

EOS/ESD Association, Inc. 7900 Turin Rd., Bldg. 3 Rome, NY 13440-2069, USA

PH +1-315-339-6937 • Email: info@esda.org • www.esda.org



EOS/ESD Manufacturing Symposium in Malaysia

Exhibitor Registration Only

APPLICATION FOR EXHIBIT SPACE

Name of Company: _____

Street Address: _____

City, State, Postal Code: _____

Country: _____

Telephone: _____

Contact: _____ Email: _____

Please provide web address to be used for your link on ESDA website: _____

We will exhibit and demonstrate the following products or services: _____

We are _____ Manufacturers _____ Other (please specify) _____

Exhibit Space Rental: \$1,000.00 USD
FULL PAYMENT DUE WITH REGISTRATION

Requested Booth Space _____ Second choice _____ Third Choice _____

Amount enclosed \$ _____ Check Visa® MasterCard® American Express® Discover®

Credit card number: _____ Expiration date: _____

Name on card: _____ Security code: _____

Cardholder's signature: _____

Billing Address _____

City: _____ State: _____ Zip/Postal Code: _____

THE UNDERSIGNED HAS READ AND AGREES TO ABIDE BY THE TERMS ON BOTH SIDES OF THIS APPLICATION.

Application By: _____ Date: _____

(Signature)

NOTES:

1. Each exhibitor receives one (1) symposium registration package for each booth rented.
2. SPACE WILL BE ASSIGNED IN THE ORDER OF RECEIPT OF REGISTRATION
3. Management reserves the right to relocate exhibit space, as necessary, to conform to show regulations.

Setting the Global Standards for Static Control!

EOS/ESD Association, Inc. 7900 Turin Rd., Bldg. 3 Rome, NY 13440-2069, USA

PH +1-315-339-6937 • Email: info@esda.org • www.esda.org

