



SH&A Certified ESD SpecialistSM Program was designed and is taught by the experts who:

- Developed the ESD iNARTE Certification Program
- Managed the team that created the ANSI/ESD S20.20 program standard
- Chaired the team that wrote the revised IEC 61340-5-1 program standard
- Developed and implemented the ESD Association Facility Certification Program
- Developed the ESD Program Manager Certification Curriculum

All of SH&A's training courses are taught by experienced ESD Professionals who are Certified ESD Program Manager Instructors and iNARTE Certified Engineers

ATTEND THE PROFESSIONAL CERTIFICATION FOR ESD SPECIALISTS LEVEL 1: PLANT AUDITOR

SH&A CERTIFIED ESD SPECIALISTSM PROGRAM

Knowledgeable companies use ANSI/ESD S20.20 or IEC 61340-5-1 as a basis for their ESD programs. The ESD Certified Specialist Program has been designed to prepare you to effectively implement and manage these programs.

The Specialist Program starts with Level 1: Plant Auditor.

Level 1: Plant Auditor will teach you how to make the required measurements verifying that your process ESD Controls are functional. It includes compliance verification resistance measurements, grounding, bench top ionizer performance assessment and ESD controls troubleshooting.



OTHER SH&A CERTIFIED SPECIALISTS PROGRAMS INCLUDE:

Level 2 Program Design & Administration will teach you to Design, Implement and Manage an ESD Program in your factory.

The Specialist Program consists of 2 major training courses.

- **Level 1 Plant Auditor** will teach you how to make the required measurements verifying that your process ESD Controls are functional.
- **Level 2 Program Design & Administration** will teach you to design and document an effective ESD Program based on the sensitivity of the devices handled in your process.

Candidates who successfully meet Level 1 or 2 program requirements will be certified by SH&A's Senior staff.

" Highly recommended to all auditors who are responsible for verifying ESD controls. "

The SH&A Certified ESD SpecialistSM Programs prepare industry to meet the handling challenges of ultra ESD sensitive electronic devices that will be commercialized over the next 3 years. SH&A's highly effective training curriculum provide the skills and information necessary to meet these challenges today.

LEVEL 1: PLANT AUDITOR (3 DAYS)

Learning Objectives

The Level 1 Plant Auditor Course will teach the fundamentals of ESD and train technicians to make the ESD Control Measurements required by ANSI/ESD S20.20 and IEC 61340-5-1 ESD Program standards including:

- Worksurfaces
- Floors
- Chairs
- Mobile Equipment
- Garments
- Personnel Grounding (footwear, wrist straps etc...)
- Ionizers
- Gloves
- Hand Tools
- ESD Ground Verification
- Packaging

This course is 3 days of intensive study that includes the following subjects:

- **Classroom Instruction**
 - ESD Basics for Auditors
 - Device Failure Models and Mechanisms
 - Equipment selection and use
 - Detailed measurement practices
- **Measurement Workshop**
 - Individual instructions on resistance and voltage measurement techniques
 - Hands on practice using state-of-the-art auditing equipment
- **Optional Certification Exam**
 - Candidate demonstrates proficiency in using equipment for required audit measurements
 - Successful candidates are designated as SH&A Certified ESD SpecialistSM Level 1: Plant Auditor

MEET OUR INSTRUCTORS



MEET STEPHEN A. HALPERIN

Stephen Halperin, president of Stephen Halperin and Associates, is a noted ESD consultant with over 30 years experience in advising major domestic and international corporations on ESD control, problem analysis, program design, and management training.

He received the ESD Association's Outstanding Contributions award for his many contributions to industry, and is widely known for developing several effective analysis & control techniques. Steve is the former chair of the ESD Association Standards Committee, Technical Advisor to the ANSI/IEC Executive Committee regarding International ESD standards, member of EIA-541 Task Force One, past member of the ESD Association Board of Directors and Chair of the Association's National Education Council and Professional ESD Certification Program. Mr. Halperin served two terms as President of the ESD Association and is an honored recipient of the ESD Outstanding Contributions Award, and the Joel P. Weidendorf award for his contributions to industry and ESD standards development.

Both Steve Halperin and Ron Gibson have been certified as Chief ESD Coordinators and instructors for the Reliability Center of Japan.



MEET RON GIBSON

Ron Gibson is an SH&A Senior Associate specializing in manufacturing process control, training and facility certification in accordance with ANSI/ESD S20.20. He is well known internationally as an outstanding ESD practitioner and as a major contributor to ESD technology for the past 25 years. He is Celestica International's Global Engineering Consultant and Corporate ESD Program Manager. He currently provides ESD technical guidance and services to all Celestica manufacturing sites, and many other international corporations.

As a respected member of the standards development community Ron is active in the International Electrotechnical Commission (IEC) as the Standards Council of Canada's (SCC) national representative and Chairman of the IEC 61340-5-1 working group. He served as the ESD Association's Standards Chair for over 10 years. A member of the ESD Association since 1988, he has been active in several Standards Committees, a contributor to and past chairman of the EOS/ESD Technical Symposium, and served in every association officer's positions including two terms as President of the ESD Association. Mr. Gibson is a recipient of the Prestigious ESD Outstanding Contributions Award for his life's work.

" My instructor was very approachable and encouraged questions. He clarified many points for me! "