# **A ESD CONSULTING SERVICES PLT**

No 3, Lorong Batu Uban 3,11700, Penang, Malaysia Email: khoooalbert@hotmail.com or <u>gk.yeoh@hotmail.com</u> Tel/fax 04-6587436/hp 016-4547560 or 019-2805794 Comp registration: 202204000124/LLP0030386-LGN Website: <u>www.esdconsulting.com.my</u>

# **Course Title: ESD Event Detection**

## **Training Course Objective:**

To ensure the participants fully understand SCS EM Eye meter is one of the most powerful tool, and probably the only one in the in the market, used in detecting and measuring the absolute values of ESD events in both CDM and HBM modes as required by ANSI ESD S20.20 standard.

# **Course Description:**

The course begins by introducing the various parts of the unit and how it functions. The meter is constructed in a modular concept and can even be expanded to different applications such as Electromagnetic Field Measurements or RF Signal measurements by simply swapping out the necessary antennas. Due to the heavy power consumption, it is necessary to ensure the built-in battery is properly charged the first time it is being used. Thereafter what is the best method to maintain the battery in a healthy mode. The details on how to assemble and disassemble the sensor module will be demonstrated. A list of the potential errors will be shared and the reasons for each of the error messages. From time to time the EM Eye Meter may locks up and how it can be rectified using the reset button.

The two critical CDM and HBM modes will be discussed. The magnitude may be switched to a raw input data mode which provides actual voltages received by the antenna for engineers who want to simply analyze raw data. The various displays and controls will be covered. It is crucial the correct set up is engaged before the actual ESD event measurements are made. Data storage is accomplished by using microSD card which is located at the bottom of the unit. The stored data can then be accessible using a PC and a free copy of the software in .aspx can be downloaded from the Static Control website. This EM Eye File Converter software and the process of sorting and analyzing the data using the tools in Excel can be accomplished.

The unit needs to be calibrated every year and some safety precautions should be adhered in order to prevent the unit being damaged.

### **Recommended participants:**

This is open to all level of staff such as Technicians, Supervisors, Engineers, Officers, Managers, etc.

#### Course structure:

The course is practically orientated with numerous examples and demos in order to help the attendees understand the course. Participants are encouraged to participate and ask questions during the session. It is recommended that the size of the class be 25 or less participants in order to enable enough attention and time allocation for the subject matter to be well understood. Each participant will be provided a handout.

#### Duration:

This is 1 full day training which begins at 9.00am until 5.00pm.

#### **Course Contents:**

1.A basic product walk through of the EM Eye ESD Event Meter Product <u>https://staticcontrol.descoindustries.com/Video.aspx</u>

2.Initial set up of the unit

- 3.Assembly of the sensors
- 4.Various display and functions
- 5.Demo of the unit in operation

6.Transmission of CDM signals through various bag shielding https://www.youtube.com/watch?v=GSFMWMDKIXg

7.Data storage and interpretation of data

8.Calibration and safety precautions