



Smart Ground™ Meter Training Course

Hood – Patterson & Dewar offers client specific Smart Ground™ Meter (SGM) training at their facility or designated site. The training course is designed for a maximum of 10 participants and is best suited for a two-day session; Day 1 in a classroom environment and Day 2 in the field.

Day 1: Theory and Introduction to SGM

Introduction into the theory of ground testing and different methods to perform ground testing, both past and present. This training covers soil resistivity, system ground impedance, ground mat impedance, touch and step potentials, transmission tower grounds, transfer voltage measurement and point to point continuity testing. The various available test methods are explained and compared to the SGM methods.

Following the completion of the theory section of the course, a client designated site is chosen and used to explain and teach the SGM user interface and SGM ground system editor which is used to create the ground model for use with the SGM in field tests. The ground editor and the possible use of layers, grid model construction, and addition of overlays and unbonded grounded items into the model are discussed and explained. This section of the training is concluded with the construction of the ground grid for the client selected site (used in Day 2 – field testing).

The first day is concluded with analysis of SGM tests from other sites and both good and bad test results are presented and explained along with possible remedies for solving field testing problems.

Day 2: Field Testing with SGM

The ground grid model, constructed using the SGM ground editor during Day 1, is then used for testing the client designated site using the SGM. The site tests include performing the following function tests:

1. System Ground Impedance tests for the site
2. Ground Mat Impedance tests for the site
3. Continuity (low Ohm, point-to-point) tests between a number of points around the site
4. Touch potential tests
5. Transfer potential tests (if site layout permits)
6. Step potential tests.

Time permitting; soil resistivity and transmission tower ground tests can be performed. For clients requiring knowledge of these tests, the suggested order of function tests can be altered.

Training can be customized to meet any client needs. For additional information, contact:

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