

Your Invitation to Attend the Next IEEE Lehigh Valley Section Power & Energy Society Meeting...

Topic: “History of Grounding/Earthing Practices”

Date: Tuesday, March 20, 2018

Location: PPL EU North Building Auditorium

Time: Meeting starts with networking at 4:00 PM.
The presentation will start at 4:30 PM and end at 7:00 PM
(includes light refreshments for those pre-registered at 5:30 PM).

RESERVATIONS ARE REQUIRED BY MARCH 19th 2 PM USING THE FOLLOWING LINK:

<https://events.vtools.ieee.org/m/169006>

Two PDH's are available for IEEE members only. You must register in the "Special Requests" Field and sign in at the meeting to receive a PDH certificate.

Speaker: Donald W. Zipse

Agenda: The history of using the earth as an electrical conductor for man-made electricity for the past 270 years is detailed in this paper. In the beginning, man-made electricity used the earth, the surface of the terrestrial ball we live on, as a conductor to return the continuous flowing electric current back to the source for 140 years. Edison realized that using the earth as an electrical conductor presented a health hazard to humans and animals. For a brief quarter of a century the earth was not used as a conductor for continuously flowing man-made electricity. In hindsight, one could reach the conclusion that the lack of knowledge of man-made electricity allowed what seemed to be the correct action at the time, later would prove to be harmful to the human race and other animals. The fascinating history of using the earth for 270 years for conducting man-made electricity has a bright future

Biography: Donald W. Zipse (S'58-M'62-SM'89-F'94-LF'97) graduated from the Williamson Free School of Mechanical Trades with honors where he gained practical experience in electrical construction and in power plant operation. He received his electrical engineering degree from the University of Delaware and went to work for Cutler-Hammer as an area sales engineer. He spent 16 years with ICI America, Inc. in their Central Engineering Department as a companywide

electrical specialist. For the next 14 years, he was with the FMC Corporation in their Engineering Service organization, functioning as an Electrical Engineering Consultant, responsible for providing electrical design of new facilities and consulting service to the total worldwide corporation, both chemical and mechanical groups.

He is a registered Professional Engineer. He represents the IEEE on the National Electrical Code Making Panel #19, Agriculture, previously #14, Hazardous Locations. He has served on the Lightning Standard NFPA 780 and is a member of the International Association of Electrical Inspectors. He serves on the National Electrical Safety Code Grounding Subcommittee. He has served on many IEEE committees, participated in the color books (IEEE Recommended Practice), and standards groups, including the Standards Board and the Standards Board's Review Committee. He is a member of the IEEE COMAR, Committee on Man and Radiation and Standards Correlating Committee #28, International Committee on Electromagnetic Safety (ICES). Mr. Zipse received the Standards Medallion for his work in and promoting standards.

He has published countless technical papers on such diverse and controversial subjects as Unity Plus Motors, Computers, Neutral to Ground Faults, NEC Wire Tables, Health Effects of Electrical and Magnetic Fields, Measuring Electrical and Magnetic Fields, Lightning Protection Systems: Advantages and Disadvantages, the NESC and the NEC: Are They Dangerous to Your Health? Electrical Shock Hazard Due To Stray Current, Grounding: The Good, The Bad and the Stupid and has participated on National Electrical Code panels and in teaching the Code.

He was President of Zipse Electrical Engineering, Inc., an electrical forensic engineering consulting firm, founded in 1993. He has been primarily involved as a forensic engineer and expert witness in cases resulting from electrical accidents and electrocutions. Since 2001 he has been involved in legal cases concerning stray current involving humans and dairy cows. He is now President of Electrical Forensics, LLC