

## Dr. Martin A. Uman - Short Biography

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Martin A. Uman received his bachelor's, master's, and doctoral degrees in Electrical Engineering from Princeton University, the latter in 1961.

Dr. Uman's first position after graduate school was Associate Professor of Electrical Engineering at the University of Arizona where he first became interested in lightning. In 1965, he joined the staff of the Westinghouse Research Laboratories in Pittsburgh where he studied the physical and electromagnetic aspects of lightning and long laboratory sparks. Dr. Uman became Professor at the University of Florida in 1971. He has been Director of the UF Lightning Research Laboratory since 1972. He co-founded and served as President of Lightning Location and Protection, Inc. (LLP) from 1975 to 1983. LLP, now a division of Vaisala, developed the lightning locating instrumentation that became the basis for the U. S. National Lightning Detection Network (NLDN). From 1991 to 2003, Dr. Uman was Professor and Chair of the Department of Electrical and Computer Engineering at the University of Florida. Presently, he holds the rank of Distinguished Professor.

Dr. Uman is generally acknowledged to be one of the world's leading authorities on lightning. He is probably best known for his work in lightning modeling: the application of electromagnetic field theory to the description of various lightning processes. That work, in addition to providing a better understanding of lightning in general, has had a number of important practical spinoffs, the most notable being the LLP lightning locating system and the redefinition of several important lightning characteristics relative to hazard protection. Dr. Uman has authored or co-authored six books on the subject of lightning (the latest in 2008) and a book on plasma physics. He has written nineteen book chapters and encyclopedia articles on lightning, and he has published over 264 papers in reviewed journals and nearly 300 in non-reviewed journals and conference proceedings. He holds seven patents, six in the area of lightning detection and location.

Dr. Uman was presented the Lifetime Achievement Award from the 2018 combined 25<sup>th</sup> International Lightning Detection Conference and 7<sup>th</sup> International Lightning Meteorology Conference for "*Outstanding leadership and significant contributions to the lightning community*". He was the recipient of the 2010 International Conference on Lightning Protection's Karl Berger Award "*for distinguished achievements in the science and engineering of lightning research, developing new fields in theory and practice, modeling and measurements*". Dr. Uman was awarded the 2001 American Geophysical Union John Adam Fleming Medal for original research and technical leadership in geomagnetism, atmospheric electricity, space science, aeronomy, and related sciences for "*outstanding contribution to the description and understanding of electricity and magnetism of the earth and its atmosphere.*" Dr. Uman was the recipient of the Heinrich Hertz Medal in 1996 by the Institute of Electrical and Electronic Engineers (IEEE) for "*...outstanding contributions to the understanding of lightning electromagnetics and its application to lightning detection and protection.*" He was named the Florida Scientist of the Year by the Florida Academy of Sciences for 1990 and the 1988-89 University of Florida Teacher-Scholar of the Year, the highest UF faculty award. He is a Fellow of three professional organizations: the IEEE, the American Geophysical Union, and the American Meteorological Society. Other awards include NASA's 1992 and 1996 Group Achievement Awards to the Galileo Probe Spacecraft Team and three IEEE prize paper awards: the 2001 IEEE Power Engineering Society Surge Protective Devices Committee Prize Paper Award; the Electromagnetic Compatibility Society 1982 Transactions Prize Paper Award; and the Industry Applications Society, Industrial and Power Systems Department, 1994 Ralph H. Lee Prize Paper Award.