

**Curriculum Vitae
Don Heirman**

Industry Experience

- 1/1/98-Pres.: Established his own EMC consultation business (incorporated as a limited liability corporation in 1997) serving as the President of Don HEIRMAN Consultants, a training and education EMC consultation practice, while continuing his role with the University of Oklahoma as Associate Director, Wireless EMC, for the University's Center for the Study of Wireless EMC.
- 4/1997-12/97: Senior EMC Consultant, Lucent Technologies (part time), providing regulatory and standards consultation support in conformity assessment of products marketed globally in the areas of electromagnetic compatibility (EMC) application, testing, and governmental rules and regulation interpretation. At that time he was named adjunct professor and senior research scientist at the University of Oklahoma and Associate Director, Wireless EMC at the University's Center for the Study of Wireless EMC. In this role he provides advanced EMC consultation to graduate students as well as the Center's founding organizations in such studies as the EMC interaction between cellular telephones and medical electronics.
- 1991-4/1997: Lucent Technologies, Bell Laboratories Innovation (formerly AT&T Bell Labs), Manager of Global Product Compliance Laboratory. Leads major international conformity assessment test and consultancy organization and provides standards contributions and leadership to international and national standards organizations including the IEEE Standards Board, the US National Committee of the International Electrotechnical Commission (IEC), ANSI Accredited Standards Committee C63 (EMC), and the IEC Special International Committee on Radio Interference (CISPR).
- 1984-1991: AT&T Bell Laboratories, Supervisor. Responsible for FCC and international regulatory EMC compliance testing and liaison with product safety underwriters; designed, built, and oversaw operation of major EMC test facilities including the first all plastic enclosed open area test site
- 1983-1984: AT&T Information Systems, Member of Technical Staff. Corporate consultant on FCC EMC compliance interpretations, regulatory test strategies; elevated to Distinguished Member of Technical Staff
- 1963-1983: Bell Laboratories, Member of Technical Staff. Predicted and suppressed power line and radio frequency interference on telephone lines.

Military Experience

- 1963-65: Active Duty US Navy in Office of Naval Communications (OP94) providing spectrum management and radio wave propagation predictions as a Lieutenant (j.g.)
- 1965-1985: Research Reservist for the Office of Naval Research
- 1985: Retired as Commander, USN

Educational Background

- 1962: BSEE - Purdue University, West Lafayette, IN
- 1963: MSEE - Purdue University, West Lafayette, IN
- 1965-66: New York University, New York, NY
- 1966-71: Polytechnic Institute of Brooklyn (Polytechnic Institute of New York), Brooklyn, NY

IEC (International Electrotechnical Commission) and US National Committee of the iEC (USNC) Activities:

- 2001-Pres.: Member of TC106 Working Groups 3 (Human Exposure assessment and measurements), WG 4 (Human exposure measurements for products), WG 5 (Generic product standard compliance to RF exposure)
- 2007-Pres.: Chairman, IEC Special International Committee on Radio Interference (CISPR)
- 2008-Pres.: Chairman of CISPR chairman's advisory group (CAG)
- 2001-Pres.: Member of CISPR Steering Committee
- 2001-Pres.: CISPR representative to the International Electrotechnical Commission (IEC) Standardization Management Board Advisory Committee on EMC (ACEC)
- 2001-2007: Chairman, CISPR Subcommittee A (EMC Measurement Methods and Instrumentation for Measuring Emissions from Electronic Products)
- 1998-2001: Secretary CISPR S/C A
- 1998-2001: Chairman CISPR S/C A Working Group 1
- 2000-Pres: Member of US National Committee Technical Management Committee
- 1995-2000: Member of Executive Committee of the U.S. National Committee (USNC) of the IEC
- 2000-Pres.: Deputy TA for USNC technical advisory group (TAG) for IEC TC106 (RF Human Exposure)
- 2000-Pres.: Deputy TA for USNC TAG for CISPR Subcommittee A
- 2000-Pres.: USNC Group Manager for electromagnetics (responsible for CISPR and its subcommittees, TC77 and its subcommittees, TC1, TC25 and TC106 facilitation matters)
- 2000-Pres.: Chairman, USNC Coordinating Committee on EMC (USCCEMC)
- 1995-1998: Secretary, CISPR S/C A Working Group 1
- 1985-Pres.: US Technical Expert for S/C A (Radio Interference Measurements and

- Statistical Techniques), S/C A, Working Group 1 (EMC Instrumentation Specifications), and S/C A, Working Group 2 (EMC Measurement Techniques for Statistical methods)
- 1994-1997: Secretary of CISPR Steering Committee Working Group on Generic Emission Limits for a Broad Category of Electronic Equipment/Products; US Technical Expert for Steering Committee, Working Group 1 (Development of Generic Standard Covering Emissions from Class B Equipment)
- 1985-2000.: US Technical Expert for:
 CISPR/E (Interference Relating to Radio Receivers)
 CISPR/E Working Group 1 (Methods of Measurement and Limits for Radiation and Immunity)
- 1985-2000.: US Technical Expert for:
 CISPR/G (Interference Relating to Information Technology Equipment)
 CISPR/G Working Group 1 (Emission from Information Technology Equipment)
 CISPR/G Working Group 2 (Additional Requirements for Emission from Information Technology Equipment (ITE) connected to Public Networks or Local Area Networks (LANs). (In 1998, WG 2 and WG 1 merged.)
 CISPR/G Working Group 3 (Immunity of ITE)
- 2001-Pres: US Technical Expert for CISPR/I Working Groups 3 and 4 (Composite of CISPR G WG1 and WG2 formed in 2001 replacing CISPR/G WGs)

Other Affiliations

- 2006-Pres.: Chairman, ANSI Accredited Standards Committee C63[®]
- 2002- 2005: Vice-Chairman, ANSI Accredited Standards Committee C63[®]
- 2002-2006: Past President and Director of Business Development for the National Cooperation for Laboratory Accreditation (NACLA)
- 2000-2001: President of the National Cooperation for Laboratory Accreditation
- 1984-Pres.: IEEE member of ANSI Committee C63[®] - Electromagnetic Compatibility (EMC) - now called Accredited Standards Committee (ASC) C63[®]
- 1992-Pres.: IEEE (Standards Assoc.) representative to ASC C63[®]
- 1986-2006.: Chairman ASC C63[®] S/C 1 (Techniques and Developments for EMC Measurements); Steer major EMC standards coordination
- 1983-1996: Chairman, ASC C63[®] S/C 5 on Immunity Standards for Home Entertainment Equipment
- 1981-2006: Principal Contributor and Writer of ANSI C63.7 (Construction of Open Area Test Sites for Making Radiated Emission Measurements); completed revision in 2005 for the 2006 edition of standard.
- 1983-2006: Principal Contributor and Periodic Chairman of ASC C63[®] Working Group on Immunity Measurements and Instrumentation Standards

Institute of Electrical and Electronics Engineers (IEEE) Activities

2010-Pres. Ethics and Member Conduct Committee
2007-Pres.: Standards Association (SA) business development ad hoc committee
2007 Ethics and Member Conduct Committee
2007-2009 Marketing and Sales Committee
2005-2006: President, Standards Association/Board of Governors
2005-2006: Director, IEEE Board of Directors
2006-2007: Member of Product Services and Products Board
2005-2006: Member of Executive Committee of the IEEE Board of Directors
2005: Member of IEEE Strategic Planning Committee
2000-2001: Chairman of Standards Association Standards Board
2002-2003: Past Chairman on the Standards Association Standards Board
2000-2007: Member of Standards Association Board of Governors
1999-2008: Vice President for Standards and member, EMC Society Board of Directors
1995-1998: Member EMC Society Board of Directors
1991 Chair, International Symposium on Electromagnetic Compatibility
1988-1991: Member of Board of Directors, EMC Society; Director for Technical Services
1982-1999: Chairman of EMCS Standards Development Committee
1982-Pres.: Chairman, EMCS EM Measurements Technical Committee (TC2)
1980-1981: President, EMC Society (Member Technical Activities Board)

Additional Affiliations

1989-Pres.: Certified EMC Engineer, International Association for Radio, Telecommunications and Electromagnetics (iNARTE)
1998-Pres.: Member, Board of the US EMC Standards Corporation
1997-2006: Member of Executive Committee of the U.S. Council of EMC Laboratories (USCEL) of the American Council of Independent Laboratories (ACIL)
2001-2006: Member of Radio and Telecommunications Terminal Equipment Compliance Association

Awards

2009—IEEE Certificate of appreciation for co-technical program chair—Detroit EMC Symposium
2008—IEC Lord Kelvin (highest award in international standards work)
2007—IEEE Life Fellow
2007—IEEE EMC Society 25 years of EMC standards service
2007—IEEE EMC award for being Technical Program chair of its 50th anniversary symposium in Hawaii
2003 – ANSI Finnegan Medal
2003 – IEEE Certificate of Appreciation, EMC Society

2000 – IEEE Millennium Medal
1997 - IEEE Charles Proteus Steinmetz Award (major IEEE field award)
1995 – IEEE EMC Society Richard Stoddart Award (highest award in the Society)
1993 - IEEE Standards Board Distinguished Service Award
1992 - IEEE Standards Board Medallion
1991 – FCC Award for Excellence (Part 68 preparations)
1987 - IEEE Fellow for leadership in performing accurate emission measurements
1984 - IEEE Honorary Life Membership, EMC Society
1984 - Lawrence G. Cumming Award, EMC Society
1984 - IEEE Centennial Medal
1982 - Distinguished Technical Staff Award, Bell Laboratories
1982 - Certificate of Achievement, EMC Society
1979, 1985, 1986, 1994 - Certificate of Acknowledgment, EMC Society
1977, 1991 - Certificate of Appreciation, EMC Society

Education and Training

Special workshops by Don HEIRMAN Consultants, LLC

2000—Telecommunication Certification Body Workshop (February)
2000—RF human exposure (SAR/MPE) Workshop (May)
2000—Bluetooth/Spread Spectrum Workshop (August)
2000-- Telecommunication Certification Body Workshop (September in London, England)
1999—IEC EMC Workshop—lecturer and facilitator (October)

Special workshops for the USNC Technical Management Committee Coordinating Committee on EMC

2007—USNC Leadership Workshop on Role of Group Manager—August
2007—ANSI Conference on US Leadership in ISO/IEC--May
2006—Workshop on IEC EMC Activity--May
2000—Workshop on Powerline Harmonics
1999—Three workshops on Powerline Harmonics--facilitator (January, May and October)

National Professional Short Course for, ANSI Accredited Standards Committee C63[®] (EMC) (Director and principal lecturer) and US EMC Standards Corporation (Board Member and Education Chairman) in the USA

2009-- ANSI C63.4 (emission measurements) (August)
2008—ANSI C63.4 (emission measurements) (August)
2008—ANSI C63.23 (measurement uncertainty) (August)
2007—ANSI C63.5-2006 on Antenna Calibration (September)
2007—ANSI C63.5-2006 on Antenna Calibration (September)

2006—ANSI C63.5 workshop on Antenna Calibration
 2005-- Comparison of CISPR 22 with ANSI C63.4
 2005-- Measurement of Radio-Noise Emissions (ANSI C63.4)
 2004-- Comparison of CISPR 22 with ANSI C63.4
 2004-- Measurement of Radio-Noise Emissions (ANSI C63.4)
 2003 – ANSI C63.19 workshop on Hearing Aid Compatibility
 2003— Comparison of CISPR 22 with ANSI C63.4
 2003-- Measurement of Radio-Noise Emissions (ANSI C63.4)
 2002-- Comparison of CISPR 22 with ANSI C63.4
 2002-- Measurement of Radio-Noise Emissions (ANSI C63.4)
 2001—SAR Measurement Uncertainty (Illinois)
 2001-- Measurement of Radio-Noise Emissions (ANSI C63.4)
 2001—Comparison of CISPR 22 with ANSI C63.4
 2001—EMC Measurement Uncertainty (Detroit)
 2000-- Measurement of Radio-Noise Emissions (ANSI C63.4)
 2000—EMC Measurement Uncertainty (Calgary, Canada)
 1999—On-site Medical Device Immunity Testing (ANSI C63.18)
 1999—Measurement of Radio-Noise Emissions (ANSI C63.4)
 1998—Measurement of Radio-Noise Emissions (C63.4)
 1998-- On-site Medical Device Immunity Testing (ANSI C63.18)
 1998 – EMC Measurement Uncertainty (given 3 times)
 1997 - ISO/IEC Guide 25 (Competency of EMC testers) Workshop
 1997 - EMC Measurement Uncertainty Workshop—given twice
 1997 - Measurement of Radio-Noise Emissions (C63.4)
 1996 - Product Design for Electromagnetic Compatibility
 1996 - Electromagnetic Compatibility Basics
 1996 - EMC Measurement Uncertainty Workshop—given twice
 1996 - Measurement of Radio-Noise Emissions (C63.4)
 1995 - Measurement of Radio-Noise Emissions (C63.4)
 1995 - Uncovering the Mysteries of Meeting the Electromagnetic Compatibility Directive
 of the European Union
 1995 - Complying with the EMC Directive (European Union)
 1994 - Basic EMC Review—International EMC Standards Activity
 1994 - Measurement of Radio-Noise Emissions (C63.4)

International Professional Short Courses, Center for Professional Advancement (Course Director and lecturer) given in The Netherlands and in some cases repeated in the USA

2003 - International EMC Standards, Requirements, Measurements, and the European
 Union Approach
 2002 - International EMC Standards, Requirements, Measurements, and the European
 Union Approach
 2001 - International EMC Standards, Requirements, Measurements, and the European
 Union Approach
 1999 - International EMC Standards, Requirements, Measurements, and the European

Union Approach
 1998 – International EMC Standards, Requirements, Measurements and the European Union Approach
 1997 - International EMC Standards, Requirements, Measurements and the European Union Approach
 1996 - International EMC Standards, Requirements, Measurements and the European Union Approach
 1995 - - International EMC Standards, Requirements, Measurements, and the European Union Approach—given twice (once as a three day course and once as a National Technological University live one day video lecture) in USA
 1993 - - International EMC Standards, Requirements, Measurements, and the European Union Approach—given three times (twice as three day courses and once as a National Technological University live one day video lecture) in USA
 1992 - Electromagnetic Compatibility Engineering (guest lecturer)—given twice
 1991 - EMC Measurements, Test Facilities, Instrumentation, and Errors
 1990 - EMC Measurements, Test Facilities, Instrumentation and Errors
 1990 - Electronic Packaging (guest lecturer)
 1989 - EMC Design and EMI Mitigation (guest lecturer)--given twice
 1989 - EMC Engineering (guest lecturer)
 1988 - EMC Engineering (guest lecturer)—given twice
 1988 - Electronic Packaging (guest lecturer)
 1987 - EMC Engineering (guest lecturer)
 1986 - EMC Engineering (guest lecturer)—given twice
 1985 - EMC Engineering (guest lecturer)
 1984 - EMC Engineering (guest lecturer)—given twice
 1983 - EMC Engineering (guest lecturer)—given twice
 1982 - EMC Engineering (guest lecturer)—given three times
 1981 - EMC Engineering (guest lecturer)
 1980 - EMC Engineering (guest lecturer)—given twice
 1979 - EMC Engineering (guest lecturer)—given twice
 1978 - EMC Engineering (guest lecturer)
 1977 - EMC Engineering (guest lecturer)

Presented numerous workshops, seminars, and tutorials at various professional meetings and symposia internationally.

Publications/Presentations

Since 1973, he has prepared/presented over 60 publications and presentations at national and international conferences/symposia/workshops. A sampling of his most recent work at the IEEE EMC Society symposia follows:

- 1) D. N. Heirman, “Measurement Sites and Associated Errors,” 2009 IEEE EMC Symposium Workshop, Austin, August 2009

- 2) D. N. Heirman, "Uncertainty Considerations in Stating Pass/Fail," 2009 IEEE EMC Symposium Workshop, Austin, August 2009.
- 3) D. N. Heirman, "CISPR SC A Activity for measurements above 1 GHz", three IEEE EMC Symposium Sessions in Portland. OR (2006), and Hawaii (2007)
- 4) D. N. Heirman, "Overview of International Standardization on EMC measurements above 1 GHz, IEEE EMC symposium in Austin, TX (2009).
- 5) D. N. Heirman, "Measurement Sites and Associated Errors," 2008 IEEE EMC Symposium Workshop, Detroit, August 2008
- 6) D. N. Heirman, "Uncertainty Considerations in Stating Pass/Fail," 2008 IEEE EMC Symposium Workshop, Detroit, August 2008
- 7) D. N. Heirman, "Measurement Sites and Associated Errors," 2007 IEEE EMC Symposium Workshop, Hawaii, July 2007.
- 8) D. N. Heirman, "Uncertainty Considerations in Stating Pass/Fail," 2007 IEEE EMC Symposium Workshop, Hawaii, July 2007.
- 9) D. N. Heirman, "CISPR SC A Activity", 2007 IEEE EMC Symposium Workshop on "Advancements in Site Validation Techniques above 1 GHz", Hawaii, July 2007
- 10) D. N. Heirman, "Introduction to IEC/ACEC" workshop," 2007 IEEE EMC Symposium Workshop, Hawaii, July 2007.
- 11) D. N. Heirman, "Measurement Sites and Associated Errors," 2006 IEEE EMC Symposium Workshop, Portland, Oregon, August 2006.
- 12) D. N. Heirman, "Uncertainty Considerations in Stating Pass/Fail," 2006 IEEE EMC Symposium Workshop, Portland, Oregon, August 2006.
- 13) D. N. Heirman, "CISPR SC A Activity", 2006 IEEE EMC Symposium Workshop on "Advancements in Site Validation Techniques above 1 GHz", Portland, Oregon, August 2006
- 14) D. N. Heirman, "IEEE Standards Association and Standards Development Process", 2006 IEEE EMC Symposium Workshop, Portland, Oregon, August 2006
- 15) D. N. Heirman, "ANSI C63.5 Antenna Calibration Workshop", Portland, Oregon, August 2006.
- 11) D. N. Heirman, et. al., "A History of the Evolution of EMC Regulatory Bodies and Standards", 16th International Zurich Symposium on Electromagnetic Compatibility, Zurich, Switzerland, February 2005.
- 12) D. N. Heirman, "Overview of Global Standards related to Site Validation and Measurements above 1 GHz", 16th International Zurich Symposium Workshop on Electromagnetic Compatibility, Zurich, Switzerland, February 2005.
- 13) D. N. Heirman, "Measurement Sites and Associated Errors," 2005 IEEE EMC Symposium Workshop, Chicago, IL, August 2005.
- 14) D. N. Heirman, "Uncertainty Considerations in Stating Pass/Fail," 2005 IEEE EMC Symposium Workshop, Chicago, IL, August 2005.
- 15) D. N. Heirman, "Implementing EMC Measurement Uncertainty", 2004 International Symposium on (EMC'04) Workshop, Sendai, Japan, June 2004.

Biographical Publications (initial listing)

“Who’s Who in the East”, 26th Edition
“Who’s Who in Finance and Industry”, 30th Edition
“Who’s Who in the Media and Communications, 1st Edition
“Who’s Who in Technology, 6th Edition
“Who’s Who in America”, 52nd through 60th Edition, 1998-2006
“Who’s Who in the World”, 14th through 23rd Edition, 1997-2006
“Who’s Who in Finance and Business, 35th Edition, 2006
“Who’s Who in Science and Engineering”, 9th edition, 2006 and earlier
“Who’s Who in the East”, 33rd Edition, 2005
“International Directory of Distinguished Leadership”, 6th Edition
“American Men and Women of Science”
“Men of Achievement”, 16th and 17th Editions, 1994 and 1997
“Five Thousand Personalities of the World”, 1998
“Dictionary of International Biography”, 23rd Edition

Note: Also listed in recent versions of the above key publications.