Dr. Andreas A Neuber, P.E.

Distinguished P.W. Horn Professor of Electrical and Computer Engineering,
Co-Director P3E Center, at Texas Tech University

Professional Preparation

Post-Doctoral Training, ECE, Texas Tech University, Lubbock, TX, 1997
Doctorate in Engineering, ME, Technical University of Darmstadt, Germany, 1996
Dipl. Phys. (M.S. Physics), Technical University of Darmstadt, Germany, 1990

Appointments

2012- Present: *Co-Director* of Center for Pulsed Power and Power Electronics, Texas Tech University, Lubbock, TX
2015-Present: *Distinguished P.W. Horn Professor*, Texas Tech University, Lubbock, TX
2011-Present: *Distinguished AT&T Professor* of Electrical and Computer Engineering, Texas Tech University, Lubbock, TX
2008-2011: *Professor* of Electr. & Comp. Engineering, Texas Tech University, Lubbock, TX
2003-2008: *Associate Professor* of Electr. and Comp. Engineering, Texas Tech University, Lubbock, TX
2000-2003: *Assistant Professor*, Texas Tech University, Lubbock, TX
1998-1999: *Research Assistant Professor* of Electrical and Computer Engineering, Texas Tech University, Lubbock, TX
1996-1997: *Post-Doctoral Researcher*, Pulsed Power and Plasma Laboratory Texas Tech University, Lubbock, TX
1990-1996: *Senior Researcher*, Technical University of Darmstadt, Germany

Professional Registration

Professional Engineer #91312, licensed in TX, since 2003

Membership

Fellow of the Institute of Electrical and Electronics Engineers (IEEE) Within IEEE Member of:
Dielectrics and Electrical Insulation Society, Nuclear and Plasma Science Society
Member of the Optical Society of America (OSA) Member of the German Society of Physics (DPG)
Member of the International Society of Explosives Engineers (ISEE)

Honors & Awards

IEEE Peter Haas Pulsed Power Award "*for his dedication and empowering the next generation of pulsed power engineers through his own renowned research program and his leadership of the Texas Tech University's Center for Pulsed Power and Power Electronics*", 2021
Fellow of the Institute of Electrical and Electronics Engineers, 2012
IEEE William Dunbar Award for "*Continuing Contributions to High Voltage Research, Technology, and Engineering Education*", 2010
Outstanding Researcher, 2009, College of Engineering, Texas Tech University
Whitacre Research Award 2008, COE, Texas Tech University
36 invited presentations at workshops and conferences

- 3 invited contributions to refereed journals, 3 plenary presentations
- Medal for "*outstanding contribution to the high energy density physics and for promotion of international cooperation*", Novosibirsk, Russia, 2008
- Cum Laude Doctorate

Professional Development and Service

- Attended international, professional conferences every year for the past 25 years.
- (Founding) Faculty Mentor for local NPSS Student Chapter at Texas Tech University, 2018 to present
- Member of the bylaws committee, IEEE PPS&T, 2018
- Chair of the IEEE Pulsed Power Science & Technology Committee (PPS&T), 2015 – 2017
- Vice Chair of IEEE Pulsed Power Science & Technology Committee (PPS&T), 2013 – 2015
- Member of the Pulsed Power Science & Technology Committee (PPS&T) of the IEEE Nuclear & Plasma Sciences Society (NPSS), 2007 – 2017. Serving as Student Advocate from 2009 to 2013.
- IEEE International Pulsed Power and Plasma Science Conference technical program committee member, 2013.
- Steering committee member for the International Mega-Gauss conference, 2005-present.
- IEEE International Power Modulator and High Voltage Conference technical program committee member, 2012.

Selection of publications (past 5 years)

1. S. A. Watkins, R. J. Lee, T. H. Austin, J. Mankowski, J. Brinkman, J. Dickens, A. A. Neuber, "An Investigation into the Surface Skidding Response of PBX 9501 and PBX 9502," Prop., Explos., Pyrotech. 2022, e202200010.
2. W. Brooks, W., M. LaPointe, M., L. Collier, J. Mankowski, J. Dickens, D. Hattz, N. Koone, N. and A. Neuber, "Lightning Current Propagation in Electrical Conduit. IEEE Transactions on Plasma Science," (2021 online, 2022 special issue)
3. R. M. Clark, J. Brinkman, and A. A. Neuber. "The Sensitivity of PBX 9502 to Drilling Operations." Propellants, Explosives, Pyrotechnics 46(9), pp. 1367-1377 (2021)
4. B. Esser, Z. C. Shaw, J. C. Dickens, and A. A. Neuber, "A 2 kW S-band RF Source for Multipactor Research Utilizing GaN HEMTs," AIP Advances 10, 095026 (2020).
5. Z. C. Shaw, L. Silvestre, T. Sugai, B. Esser, J. J. Mankowski, J. C. Dickens, and A. A. Neuber, "On the Limits of Multipactor in Rectangular Waveguides," Physics of Plasmas 27, 083512 (2020).
6. I. A. Aponte, B. Esser, Z. C. Shaw, J. C. Dickens, J. J. Mankowski, and A. A. Neuber, "Fundamental Study of DC and RF Breakdown of Atmospheric Air," Physics of Plasmas 26, 123512 (2019).
7. L. Collier, T. Kajiwara, J. Dickens, J. Mankowski, and A. Neuber. "Fast SiC Switching Limits for Pulsed Power Applications." IEEE Transactions on Plasma Science 47 (12), 5306-5313 (2019).
8. B. Esser, J. J. Mankowski, J. C. Dickens, and A. A. Neuber. "Geometry Tuning of an Electrically Small Antenna for Ionospheric Heating." Radio Science 54, Iss. 6, 494-502 (2019).
9. L. Collier, T. Buntin, J. Dickens, J. Mankowski, J. Walter, and A. Neuber, "Magnetic Field Diffusion in Medium-Walled Conductors," IEEE Transactions on Plasma Science 47, 1024-1031 (2019).
10. S. Feathers, J. Stephens, and A. Neuber. "550-W Ultraviolet Exciplex Source for Pulsed Power Applications." IEEE Transactions on Plasma Science 47, 508-511 (2019).
11. J. Stephens, M. Abide, A. S. Fierro, and A. Neuber. "Practical considerations for modeling streamer discharges in air with radiation transport." Plasma Sources Science and Technology 27, 075007 (2018)
12. Z. Shaw, W. Feilner, B. Esser, J. Dickens, A. Neuber, "A software controllable modular RF signal generator with multichannel transmission capabilities," Review of Scientific Instruments, AIP Publishing, 88, 094706 (2017).

Total of 175 peer-reviewed journals (46 in past 5 years).