

John J. Mankowski, PhD, PE

Education

Ph.D., Electrical Engineering, Texas Tech University, 1997
M.S.E.E., Electrical Engineering, Texas Tech University, 1995
B.S.E.E., Electrical Engineering, Worcester Polytechnic Institute, 1990

Academic experience

Aug 2009 to present (Full Time) Associate Professor. Texas Tech University
Aug 2002 to 2008 (Full Time) Center for Pulsed Power & Power Elec.
Dept. of Electrical and Comp. Eng.
Lubbock, TX

Sep 2001 to Dec 2002 (Part Time) Adjunct Professor University of Tennessee at Chattanooga
Department of Engineering

Non-academic experience

Aug 2008 to July 2009 (Full Time) Engineering Manager Prima North America
Convergent Lasers
Chicopee, MA

Aug 1999 to Aug 2002 (Full Time) Senior Electrical Engineer Accurate Automation Corp.
Chattanooga, TN

Certifications or professional registrations

State of Texas Professional Engineer, License no. 94144

Current membership in professional organizations

Senior Member, Institute of Electrical and Electronics Engineers (IEEE)

Service activities

Technical organizer, US-Japan Symp. on Pulsed Power and Plasma Applications, Aug. 2006
Guest Editor, IEEE Transaction on Plasma Science Special Issue on High Power Particle Beams,
Oct 2010

Recent Publications

with D. Reale, Y. Chen, J. Walter, S. Holt, and J. Dickens, "Theoretical Performance of a Mobile
GPS Linked Pulsed Ring Down Array," IEEE Transactions on Dielectrics and Electrical
Insulation, accepted for publication, (2011)

- with Y. Chen, J. Dickens, S. Holt, D. Reale and M. Kristiansen, "Phased Array Pulsed Ring-down Source Synchronization with a GPS Based Timing System," IEEE Transactions on Dielectrics and Electrical Insulation, accepted for publication, (2011)
- with R. Karhi, D. Wetz, M. Giesselmann, J. Diehl, and P. Kelly, "A 40-Stage Synchronous Distributed Energy Railgun," IEEE Transactions on Plasma Science, accepted for publication, vol. 39, no. 5, (2011)
- with Y. Chen, J. Dickens, M. Kristiansen, "Optimization of a low jitter, 50 kV, 100 Hz triggered spark gap with high pressure gas mixtures," IEEE Trans. on Dielectrics and Electrical Insulation, vol. 16, no. 4, August 2009 Page(s):971 - 978
- with Y. Chen; J. Dickens, J. Walter, and M. Kristiansen, "Low-Jitter Triggered Spark Gap With High-Pressure Gas Mixtures," IEEE Transactions on Plasma Science, vol. 36, no. 5, Pt. 3, Oct. 2008
- with D. McCauley, D. Belt, J. Dickens, A. Neuber, and M. Kristiansen, "Compact Electroexplosive Fuses for Explosively Driven Pulsed Power," IEEE Trans. on Plasma Science, vol. 36, no. 5, Pt. 3, Oct 2008
- with D. Belt, A. Neuber, J. Dickens, and M. Kristiansen, "Utilization of a Nonexplosive Test Bed for Flux-Compression-Generator Electroexplosive Opening Switches," IEEE Trans. on Plasma Science, vol. 36, no. 5, Pt. 3, Oct. 2008.
- with R. Karhi, J. Dickens, D. Wetz, and M. Kristiansen, "Secondary Arc Formation within a Distributed Energy Railgun," IEEE Trans. on Plasma Science, vol. 36, no. 5, Pt. 3, Oct. 2008.
- with D. Belt, "Diagnostics of the Start-Up of an Arc Hollow cathode," IEEE Trans. on Plasma Science, vol. 36, no. 4, Pt. 2, Aug 2008.
- with J. Walter and J. Dickens, "Imaging of the Explosive Emission Cathode Plasma in a Vircator High-Power Microwave Source," IEEE Trans. on Plasma Science, vol. 36, no. 4, Pt. 1, Aug 2008.
- with Y. Chen, J. Walter, M. Kristiansen, and R. Gale, "Cathode and Anode Optimization in a Virtual Cathode Oscillator," IEEE Trans. on Dielectrics and Electrical Insulation, vol. 14, no. 4, Aug. 2007
- with D. Wetz, B. McDaniel, B. McHale, J. Dickens, M. Giesselmann, and M. Kristiansen: A bench top railgun with distributed energy sources, IEEE Trans. on Magnetics, vol. 43, no. 1, Jan. 2007.
- with D. Wetz, J. Dickens, and M. Kristiansen, "The Impact of Field Enhancements and Charge Injection on the Pulsed Breakdown Strength of Water," IEEE Trans. Plasma Science, vol. 34, no. 5, Oct. 2006.
- with D. Belt, J. Dickens, A. Neuber, and M. Kristiansen: Design and implementation of a flux compression generator non-explosive test bed for electro-explosive fuses, Rev. of Scientific Inst., vol. 77, 094702, 2006.

Recent professional development activities

Presenter at Pulsed Power Short Course Texas Tech University Jan. 2007 and Jan. 2011