

# Curriculum Vitae

**Hulya Kirkici, Ph.D., Fellow-IEEE**

**Chair and Professor**

Electrical and Computer Engineering

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## EDUCATION

- Jan. 1990*      *Ph.D.*    *Electrical Engineering, Polytechnic University, New York, NY*  
(currently – New York University, Tandon School of Engineering)  
**Dissertation Title:**    *Electronic Energy Transfer Lasers*
- July 1984*      *M.S.*     *Physics, Middle East Technical University, Ankara, Turkey*  
**Thesis Title:**    *Construction of Continuous Wave Dye-Ring Laser for*  
*Frequency Doubling*
- July 1981*      *B.S.*     *Physics, Middle East Technical University, Ankara, Turkey*

## EXPERIENCE

### Academic Positions

- July 2016 – present*      *Professor and Chair,*  
Electrical and Computer Eng., Univ. of South Alabama, Mobile AL
- July 2016 – present*      *Affiliate Professor*  
Electrical and Computer Engineering Dept. Auburn Univ., Auburn, AL
- Aug. 2011 – May 2016*      *Professor,*  
ECE Dept. Auburn University, Auburn, AL
- Sept. 1998-Aug.2011*      *Associate Professor,*  
ECE Dept. Auburn University, Auburn, AL
- Jan 1993-Sept. 1998*      *Assistant Professor,*  
ECE Dept. Auburn University, Auburn, AL
- Nov. 1991-Jan. 1993*      *Postdoctoral Research Fellow,*  
Space Power Institute, Auburn University, AL
- Jan. 1990- Nov. 1991*      *Postdoctoral Research Associate,*  
Weber Research Inst., Polytechnic Univ., Farmingdale, NY
- Jan. 1990-June 1990*      *Adjunct Faculty,*  
Department of Physics, Polytechnic Univ., Farmingdale, NY
- Jan. 1986-Jan.1990*      *Graduate Research Fellow,*  
Weber Research Inst., Polytechnic Univ., Farmingdale, NY

Sept. 1980-June 1984      *Instructor/Teaching Assistant,*  
Physics Dept., Middle East Technical Univ., Ankara, Turkey

## Government Laboratories

March 1999-Sept. 2000      *Visiting Scientist/Engineer,*  
NASA, Marshall Space Flight Center, Huntsville, AL  
(on leave from Auburn University)

Sept. 2014 -Dec. 2014      *Consultant / Visiting Scientist*  
U.S. Air Force Research Lab – Wright Patterson Air Force Base,  
Aerospace Systems Directorate-High Speed Systems Division, Dayton  
OH, (on leave from Auburn University)

May 2015 – Aug 2015      *Summer Faculty Fellow,* U.S. Air Force Research Lab – Wright  
Patterson Air Force Base, Aerospace Systems Directorate – Energy  
Systems, Dayton OH,

## Leadership

July 2016 – present      *Department Chair*  
*Electrical and Computer Eng., Univ. of South Alabama*

Jan 2015 – Dec 2015      *Presidential Administrative Fellow,*  
Auburn University President’s Office, Auburn University

Jan 2014 – Dec 2015t      *Vice President of Technical Operations / Activities*  
IEEE Sensors Council

Jan 2011 – Dec 2013      *Finance Chair and Treasurer*  
IEEE Publications Services and Products Board (PSPB -one of the  
major governing Boards of IEEE)

Jan 2009 – Dec 2010      *President,*  
IEEE-Dielectrics and Electrical Insulation Society

June 2005 - July 2014      *Chair, Executive Committee*  
IEEE International Power Modulator and High Voltage Conference  
Executive Committee

## Research Expertise Synopsis

Electrical insulation of aerospace and space power systems operating in subatmospheric conditions and using high frequency switching conversion. Pulsed power engineering and repetitive pulsed power systems to study breakdown characteristics of novel dielectrics, such as nano/micro-dielectrics and biodielectrics. Compact plasma switches and vacuum electronic device development using advanced materials, such as carbon nanotubes (CNTs). Nanosecond respective pulsed plasmas and temporally and spatially resolved electrical and optical diagnostics techniques to understand physical mechanisms, and laser application.

## Honors and Awards

- Fellow-IEEE, “for contributions to high frequency, high field dielectric breakdown and electrical insulation for space and aerospace power systems” Class of 2017
- Recipient of the **Eric O. Forster Distinguished Service Award**, the highest service honor given by the IEEE-Dielectrics and Electrical Insulation Society, October 2015 (<http://eng.auburn.edu/news/2015/09/kirkici-hulya-forster-distinguished-service-award.html>)
- **Distinguished Lecturer**, IEEE Nuclear and Plasma Society (NPSS), <http://iee-npss.org/distinguished-lecturers/> April 2015 – present
- Recipient of the **IEEE William G. Dunbar Award** “for continuing contribution to high-voltage and high frequency insulation research and engineering education” presented at the 2014 IEEE International Power Modulator and High Voltage Conference, June 2014.
- **Invited Plenary Speaker** “Dielectrics and Electrical Insulation Fundamentals for Pulsed Power” and “High Frequency and High Field effects on Insulation.” Chinese Pulse Power Summer School in Mianyang, China, August 2014.
- **IEEE Distinguished Lecturer**, “Novel dielectrics and advanced electrical insulation technology” IEEE POCO Meeting, Beijing, China, July 2011
- **Plenary Speaker** (Invited), “Energy Policies and Research / Development Trends in the USA,” Presented at the Korean Institute Electrical and Electronic Materials Engineering (KIEEME) Summer Conference, Energy Symposium, Muju Resort, S. Korea, June 16, 2010
- Recipient of the **IEEE Sol Schneider Award**, “for continuing technical and administrative leadership in the power modulator and high voltage communities” presented at the 2010 IEEE Power Modulator and High Voltage Conference, May 2010
- Recipient of **Honorary Mention for the 2005 Outstanding Advisor Award** presented by the Society of Women Engineers, Southeast Region-D, 2005
- Senior Member of IEEE, awarded/elevated in 1996
- Member of Phi Beta Delta, Honor Society for International Scholars, awarded in 1995
- Member of Eta Kappa Nu, Electrical Engineering Honor Society, awarded in 1994
- Member of Sigma Xi, Scientific Research Society (Honor Society), awarded in 1991
- American Association of University Women (AAUW) Educational Foundation, International Fellowship (Award), 1988-1989
- Westinghouse Foundation Award for Women Engineers, summer of 1986
- Turkish Government, Ministry of Education Graduate Scholarship (to study in the USA towards a doctoral degree), 1984 – 1988
- Turkish Scientific and Technological Research Institute Graduate Scholarship (TUBITAK – equivalent to NSF in the USA), 1981 – 1983

## Professional Affiliations / Membership

- IEEE, Senior Member, 1986 to present
  - IEEE Dielectrics and Electrical Insulation Society
  - IEEE Nuclear and Plasma Science Society

- IEEE Electron Devices Society
- IEEE Education Society
- IEEE Industrial Applications Society
- IEEE Photonics Society (formerly: Lasers and Electro Optics Society)
- American Physical Society (APS), Member, 1984 - present
  - APS Laser Science Society
  - APS Atomic, Molecular and Optical Science Society
  - APS, Division of Plasma Science
- American Association of University Women (AAUW), 1989 - present

## RESEARCH

### PUBLICATIONS

#### *Books (Design Standards)*

1. **H. Kirkici, Editor**, *Spacecraft High Voltage Design Guide, AFRL-Design Standards Document*, Authors: W. Dunbar, D. K. Hall, H. Kirkici, B. Hillard, and D. Schweichart, May 2006 (un-published).
2. W. Dunbar, D. K. Hall, **H. Kirkici**, B. Hillard, and D. Schweichart, *Spacecraft High Voltage Design Guide, NASA-Design Standards Document*, (200 pages, submitted as NASA Standards Document), May 2002 (un-published).
3. W. Dunbar, D. K. Hall, **H. Kirkici**, B. Hillard, and D. Schweichart, Electric Auxiliary Power Unit Corona Design Guideline, “NASA-Space Transportation System Orbiter Upgrades Program” *Standards Document*, (40 pages, Released/Implemented – internal), June 2000.

#### *Patents & Disclosures*

1. Hulya Kirkici and Robert Dean, “High Temperature Carbon Nanotube Signal Rectifier,” Provisional Patent App. No. 61830349, June 2014

#### *Refereed Journal Papers*

1. Yunus Bicen, Faruk Aras, and **Hulya Kirkici**, “Lifetime Estimation and Monitoring of Power Transformer Considering Annual Load Factors,” *IEEE Transactions Dielectrics and Electrical Insulation*, Vol. 21, Issue 3, pp. 25-33, 2014
2. M.E. Baginski, H. Lu, B.T. Caudle, **H. Kirkici**, “Optimal Design of an N-Stage Nonlinear Transmission Line Based on Genetic Algorithm and LTspice,” *IEEE Transactions on Plasma Science*, Volume: 41 Issue: 8, Part: 3 Page(s): 2408 – 2414, 2013
3. Byron T. Caudle, Michael E. Baginski, **Hulya Kirkici** and Michael Hamilton, “Three Dimensional FDTD Simulation of Nonlinear Ferroelectric Materials in Rectangular Waveguide,” *IEEE Transactions on Plasma Science*, Vol. 41, pp: 365-70, 2013
4. Chung-Nan Tsai and **Hulya Kirkici**, “Field Emission Characteristic of Selectively Grown Carbon Nanotubes (CNTs),” *IEEE Trans. on Electron Devices*, Vol. 60, pp 478-82, 2013

5. H. Zhao and **H. Kirkici**, "Carbon Nanotube (CNT) triggered Pseudospark Switch," *IEEE Transactions on Plasma Science*, Vol. 40, issue: 9, pp: 2225-2231, 2012
6. **Hulya Kirkici** and Bruce Bernstein; **Invited Paper (6pages)** "Energy Policies and Research / Development Trends in the USA." *Transaction on Electrical and Electronic Materials*, Vol. 11, No. 5, 2010
7. Mert Serkan and **Hulya Kirkici**, "Reshaping a Divergent Elliptical Gaussian Laser Beam into a Circular, Collimated, and Uniform Beam with Aspherical Lens Design," *IEEE Sensors Journal*, Volume 9, Issue 1, Page(s):36 – 44, Jan. 2009
8. **Hulya Kirkici**, Kalyan Koppisetty, and Mert Serkan, "Image Analysis: A Tool for Optical Emission Characterization of Partial Vacuum Breakdown", *IEEE Transactions on Plasma Science*. Volume 37, Issue 1, Page(s):153 – 158, Jan. 2009
9. Kalyan Koppisetty and **Hulya Kirkici**; "Breakdown Characteristics of Helium and Nitrogen at kHz Frequency Range in Partial Vacuum for Point-to-Point Electrode Configuration," *IEEE Transactions Dielectrics and Electrical Insulation*, Vol. 15, pp. 749-55, June 2008
10. Mert Serkan, Nebiye Musaoglu, **Hulya Kirkici**, Cankut Ormeci, "Edge and Fine Detail Preservation in Synthetic Aperture RADAR (SAR) Images through Speckle Reduction with an Adaptive Mean Filter," *International Journal of Remote Sensing*, Vol. 29, Issue 23, p6727-6738, Dec 2008.
11. Mert Serkan and **Hulya Kirkici**, "Optical Beam Shaping Design based on Aspherical Lenses for Elliptical Laser Beam Circularization and Collimation," *Journal of Applied Optics*, Vol. 47, No: 2, pp 230 – 241, January 2008
12. **Hulya Kirkici**, Mert Serkan, Kalyan Koppisetty, "Nano/Micro Dielectric Surface Flashover in Partial Vacuum," *IEEE Transactions Dielectrics and Electrical Insulation*, Volume 14, Page(s):790 - 795 August 2007.
13. K. Koppisetty, **H. Kirkici**, D. L. Schweickart, "Partial Vacuum Breakdown Characteristics of Helium at 20 kHz for Inhomogeneous Field Gap" *IEEE Transactions Dielectrics and Electrical Insulation*, Volume 14, Page(s):553 – 559, June 2007.
14. Wheeler G. Foshee, III, **Hulya Kirkici**, John Y. Hung, Eugene K. Blythe, Aditya Goel, and Glenn R. Wehtje, "Seedling Emergence of Smallflower Morningglory and Green Foxtail Subjected to a Pulsed Electric Field," *International Journal of Vegetable Science*, vol. 13, No: 1, pp 61-72, 2007.
15. Mert Serkan and **Hulya Kirkici**, "Off-Axis Mirror System Design for Circularization, Collimation, and expansion of elliptical Laser Beams," *Journal of Applied Optics*, Vol. 46, No: 22, pp 5489 – 5499, August 2007
16. Faruk Aras, V. Alekberov, N. Can, and **Hulya Kirkici**, "Aging of 154 KV Underground Power Cable Insulation under Thermal and Electrical Stresses," *IEEE Electrical Insulation Magazine*, Volume 23, No: 5, Page(s):25 – 33, Sept.-Oct. 2007
17. H. Goktas, **H. Kirkici**, G. Oke, and M. Udrea, "Microprocessing by Intense Pulsed Electron Beam," *IEEE-Transactions on Plasma Science*, vol. 30, no. 5, October 2002.
18. **H. Kirkici**, "Optical Emission Characteristics of Polycrystalline Diamond during Surface Flashover in Vacuum," *IEEE Transactions on Dielectrics and Electrical Insulation*, Vol. 4, pp 822 – 6, Dec, 1997
19. **H. Kirkici**, "Surface Flashover Characteristics of Diamond-Like-Carbon Thin Films in Vacuum," *IEEE Transactions on Dielectrics and Electrical Insulation*, Vol: 4, pp 71 -78, Jan. 1997

20. **H. Kirkici**, M. F. Rose, T. Chaloupka; "Experimental Study on Simulated Lunar Soil: High Voltage Breakdown and Electrical Insulation and Breakdown Characteristics," *IEEE Transactions on Dielectrics and Electrical Insulation*, vol. 3, no:1, pp119-25 February, 1996
21. **H. Kirkici**; "On the Excitation Mechanism of Hydrogen Balmer Lines in a Plasma Mixing Device," *Physical Review-E* vol. 51, pp6289-92, June, 1995.
22. **H. Kirkici** and D. Bruno; "Operating Characteristics of a Segmented Hollow Cathode over a Wide Pressure Range", *IEEE Transactions on Plasma Science*, vol. 23, June, 1995.
23. G. Schaefer and **H. Kirkici**, "On the Excitation Mechanism of Oxygen Laser," *IEEE Journal of Quantum Electronics*, vol. QE-26, pp1418-24, 1990.
24. **H. Kirkici**, D. Bruno, J. Preiss, and G. Schaefer; "Charge Transfer Collisions Between He<sub>2</sub><sup>+</sup> ions and N<sub>2</sub>: Branching Ration into Vibration Stated," *Journal of Applied Physics*, vol. 67(10), pp6041-44, 1990.
25. G. Schaefer and **H. Kirkici**, "On The Excitation Mechanism Of The CW Atomic Flourine Laser," *IEEE, Journal of Quantum Electronics*, vol. QE-25, pp2344-49, 1989.
26. **H. Kirkici** and R. Aydin; "Elaboration of the Optical Parameters of a CW Ring Dye Laser fro Intra-cavity Frequency Doubling," *Doga: Turkish Journal of Physics and Astrophysics*, vol. 10, no: 2, pp131-135, 1986.

### **Refereed Conference Papers**

1. Ali Osman Ozkan, Muciz Ozcan, Maria Auad, and **Hulya Kirkici**, 20 kHz Unipolar Pulsed Field Surface Flashover Characteristics of Polymer Nanocomposites in Subatmospheric Pressure Helium, *Proceedings of 2014 IEEE International Power Modulator and High Voltage Conference*, (4-pages), June 2014
2. Huirong Li, Michael Baginski, Rik Blumenthal, and **Hulya Kirkici**, "Finate Element Modeling of Plasma Initiation by Carbon Nanotubes (CNTs) as the Cold Cathode in Pseudospark Switch," *Proceedings of 2014 IEEE International Power Modulator and High Voltage Conference*, (4-pages), June 2014
3. Baha Yakupoglu and **Hulya Kirkici**, "Fabrication and Operating Characteristics of Carbon-nanotube Dioed," *Proceedings of 2014 IEEE International Power Modulator and High Voltage Conference*, (4-pages), June 2014
4. Michael Jung, Thomas Baginski, **Hulya Kirkici**, "Test-bed of Pulsed Radio Frequency (RF) Signal Used with a Diode Made of Carbon Nanotubes (CNTs)" *Proceedings of 2014 IEEE International Power Modulator and High Voltage Conference*, (4-pages), June 2014
5. John Gray, Huirong Li, and **Hulya Kirkici**, "Breakdown and Optical Emission Characteristics of Point to Point Electrodes subject to Pulsed 20kHz Applied Field in Subatmospheric Pressures," *Proceedings of 2014 IEEE International Power Modulator and High Voltage Conference*, (4-pages), June 2014
6. Joseph Bryant, Michael Baginski, **Hulya Kirkici**, and William Little, "Peak Pulse Power Enhancement via Substrate Integrated Waveguides filled with Non-Linear Dielectrics," *Proceedings of 2014 IEEE International Power Modulator and High Voltage Conference*, (4-pages), June 2014
7. Chung-Nan Tsai and **Hulya Kirkici**, "Selectively Grown Carbon Nanotubes (CNTs): Characterization and Field Emission Properties," in the *Proceedings of 2012 IEEE International Power Modulator and High Voltage Conference*, (4-pages), June 2012

8. Huirong Li and **Hulya Kirkici**, Electrical Characteristics of Microplasma Devices with Carbon Nanotubes (CNTs) as the Cathode, in the *Proceedings of 2012 IEEE International Power Modulator and High Voltage Conference*, (4-pages), June 2012
9. Rujun Bai and **Hulya Kirkici**, "Nonlinear Fowler-Nordheim Plots of Carbon Nanotubes (CNTs) in Vacuum and Partial Pressures," in the *Proceedings of 2012 IEEE International Power Modulator and High Voltage Conference*, (4-pages), June 2012
10. Zhenhong Li and **Hulya Kirkici**, "Surface Flashover of Nanodielectrics with Varying Electrode Architectures in Partial Vacuum under DC and kHz Pulsed Fields," in the *Proceedings of 2012 IEEE International Power Modulator and High Voltage Conference*, (4-pages), June 2012
11. Byron T. Caudle, Michael E. Baginski, and **Hulya Kirkici**, "3D FDTD Simulation of Nonlinear Ferroelectric Materials in Rectangular Waveguide," in the *Proceedings of 2012 IEEE International Power Modulator and High Voltage Conference*, (4-pages), June 2012
12. **Hulya Kirkici**, HV Design Guidelines on Aerospace (and air) Vehicles, SAE International, the Proceedings of the **2010 SAE Power Systems Conference**, Ft. Worth, TX, Nov., 2010
13. Ramesh Bokka and **Hulya Kirkici**, "Field Emission Degradation of Carbon Nano-tubes," in the *Proceedings of 2010 IEEE International Power Modulator and High Voltage Conference*, (4-pages), May 2010
14. Mark Lipham, Haitao Zhao, and **Hulya Kirkici**, "Breakdown Characteristics of Argon in Partial Vacuum under kHz Pulsed Voltage for Point-to-Point Electrode Geometry," in the *Proceedings of IEEE International Power Modulator and High Voltage Conference 2010*
15. Haitao Zhao and **Hulya Kirkici**, "Effects of Impurity on field emission of Carbon Nano-Tubes, in the *Proceedings of 2010 IEEE International Power Modulator and High Voltage Conference*, (4-pages), May 2010
16. Fang Li and **Hulya Kirkici**, "Nanodielectric Surface Flashover Studies under kHz Range Pulsed Fields in Partial Vacuum," in the *Proceedings of 2010 IEEE International Power Modulator and High Voltage Conference*, (4-pages), May 2010
17. M. Lipham, Haitao Zhao; **H. Kirkici**, "Breakdown characteristics of Argon in partial vacuum under high frequency pulsed voltage with varying duty cycle," in the Proceedings of the IEEE Pulsed Power Conference, Page(s): 1085 - 1087, July 2009.
18. Ramesh Bokka, Shaomao Li; Wheeler Foshee, and **Hulya Kirkici**, "Pulsed electric field effects on the germination rate of yellow nutsedge seeds," in the Proceedings of the IEEE Pulsed Power Conference, July 2009
19. Shaomao Li, **Hulya Kirkici**, "Field emission characteristics of carbon nano tubes under varying background pressure conditions," in the Proceedings of the IEEE Pulsed Power Conference, Page(s): 693 - 696, July 2009.
20. K. Koppisetty, **H. Kirkici**, and S. M. Li, "Characteristics of Cold-Electrode Emitter Materials for Pulsed Hollow Cathode Discharges," *Proceedings of IEEE International Power Modulator Conference*, May 2008
21. K. Koppisetty and **H. Kirkici**, and D. L. Schweickart, "Breakdown Characteristics of Nitrogen under Unipolar Applied Voltages for Non-Uniform Field Electrode Configuration," *Proceedings of IEEE International Power Modulator Conference*, May 2008
22. M. Lipham K. Koppisetty, and **H. Kirkici**, Frequency Effects on Hollow Cathode Discharges," *Proceedings of IEEE International Power Modulator Conference*, May 2008

23. Kalyan Koppisetty and **Hulya Kirkici**, "Optical Emission Characteristics of Electric Discharges in Helium, Argon-Nitrogen Mixtures Under High Frequency Unipolar Voltages," *Annual Report of IEEE Conf. on Electrical Insulation and Dielectrics Phenomena*, Oct. 2008
24. Kalya Koppisetty, **Hulya Kirkici**, and Daniel Schweickart, "Pulsed Breakdown Characteristics of Helium in Partial Vacuum in kHz Range," in the *Proceedings of 2007 IEEE International Pulsed Power Conference*, Albuquerque, NM, July 2007.
25. Sozer, Esin B.; Koppisetty, Kalyan; **Kirkici, Hulya**, Pulsed Hollow Cathode Discharge Characteristics," in the *Proceedings of 2007 IEEE International Pulsed Power Conference*, Albuquerque, NM, July 2007.
26. Schweickart, Daniel L.; **Kirkici, Hulya**; Walko, Lawrence C.; Dunbar, William G., "Insulation & Dielectric Breakdown Design Considerations in Sub-Atmospheric Environments," *Proceedings of 2007 IEEE International Pulsed Power Conference*, Albuquerque, NM, July 2007
27. Kalya Koppisetty, **Hulya Kirkici**, and Daniel Schweickart, "Breakdown Characteristics of Nitrogen in Partial Vacuum Under Pulsed Electric Fields of kHz Range," *Proceedings of 2007 IEEE Electrical Insulation Conference*, October, 2007
28. Kalyan Koppisetty, Esin B. Sozer, **Hulya Kirkici**, D. L. Schweickart, "Helium Breakdown Characteristics under 100 kHz Range Pulsed Voltages in Partial Vacuum for Point-to-Point Electrode Geometry," *Proceeding of 2006-IEEE-Power Modulator Conference*, May 2006
29. Hulya Kirkici, **Invited Paper/Talk** "High Voltage Insulation Space Environment and Design Guideline," *Proceeding of 2006-IEEE-Power Modulator Conference*, May 2006
30. M. Serkan, **H. Kirkici**, K. Koppisetty, "Surface Flashover Characteristics of Nano-Composite Dielectric Materials under DC and Pulsed Signals in Partial Vacuum," *Proceeding of 2006-IEEE-Power Modulator Conference*, May 2006
31. **Hulya Kirkici**, Mert Serkan, and K. Koppisetty, "Nano-Dielectric Materials in Electrical Insulation Application," *Proceedings of the IEEE IECON 2005*, November 2005
32. Koppisetty Kalyan, Dan Schweichart, and **Hulya Kirkici**, "Helium Breakdown at 2kHz under Partial Vacuum for Point to Plane Electrode Geometry," *Proceedings of the 2004-IEEE-Power Modulator Conference*, March 2005
33. Kalyan Koppisetty, **Hulya Kirkici**, Daniel Schweickart, "Optical Emission Characteristics of Helium Breakdown at Partial Vacuum for Point-to-Point Electrode Geometry," *the Annual Report of 2004-IEEE-CEIDP Conference*, October 2005
34. Kalyan Koppisetty, **Hulya Kirkici**, "Surface Flashover Characteristics of Nano-Particle Cast Epoxy Resin," *the Annual Report of the 2004-IEEE-CEIDP Conference*, October 2005
35. Yonhua Tzeng, **Hulya Kirkici**, Chao Liu, Chris Seymore, An-Jen Cheng, Yu-Chun Chen, Kalyan Koppisetty and Hyungwook Kim, "Carbon Nanotubes as a Cold Electron Beam Source for Pseudospark Plasma Switches and Pulsed Power Applications," *in the Proceedings of the Applied Diamond Conference/ Nano Carbon 2005*, Argonne National Laboratory, May 2005
36. Chris Seymore, Yonhua Tzeng, **Hulya Kirkici**, Chao Liu, An-Jen Cheng, Yu-Chun Chen, Kalyan Koppisetty, and Hyungwook Kim, "Carbon Nanotubes as Cold Cathode for Pulsed Power Applications," *in the Proceedings of the 15<sup>th</sup> IEEE Pulse Power Conference*, June, 2005
37. Kalyan Koppisetty, **Hulya Kirkici**, Daniel Schweickart, "Optical Emission Characteristics of Helium Breakdown at Partial Vacuum for Point to Plane Electrode Geometry," *in the Proceedings of the 15<sup>th</sup> IEEE Pulse Power Conference*, June, 2005

38. Koppisetty Kalyan, **Hulya Kirkici**, “Gaseous Breakdown at High Frequencies under Partial Vacuum,” *the Proceedings of 2003 IEEE-Conference on Electrical Insulation and Dielectric Phenomena*, October, 2003.
39. Aditya Goel, **Hulya Kirkici**, Wheeler Foshee, “Pulsed Electric Field Studies of Bio-dielectrics,” *the Proceedings of 2003 IEEE-Conference on Electrical Insulation and Dielectrics Phenomena*, October, 2003.
40. H. Goktas, A. Alacakir, G. Oke, A. Esendemir, I. Yildiz, A. Seyhan, **H. Kirkici**, M. Udrea, “The Spectroscopic Measurements of Electron Density in a Double Discharge Pulsed Electron Beam Generator (DDPEBG),” *in the Proceedings of the 14<sup>th</sup> IEEE Pulse Power Conference*, June, 2003
41. H. Goktas, A. Alacakir, G. Oke, A. Esendemir, I. Yildiz, A. Seyhan, **H. Kirkici**, M. Udrea, “The Pinch Effect Characteristics of Filamentary Discharge in a Double Discharge Pulsed Electron Beam Generator (DDPEBG),” *in the Proceedings of the 14<sup>th</sup> IEEE Pulse Power Conference*, June, 2003.
42. **Hulya Kirkici**, “Electrical Insulation Breakdown in Space Environment,” *Proceedings of the IEEE-International Power Modulator Conference*, pp424-27, June 30 – July 3, 2002
43. Hulya Kirkici, “High Frequency Breakdown and Electrical Insulation in Space Environment, **invited paper**,” *Proceedings of the 8<sup>th</sup> International Conference on Optimization of Electrical and Electronic Equipment OPTIM 2002*, Brasov, Romania, May 16-17 2002.
44. H. Goktas, **H. Kirkici**, G. Oke, M. Udrea, “Micro-Processing by Intense Electron Beam” *Proceedings of IEEE-Pulsed Power and Plasma Science Conference*, June 2001.
45. **H. Kirkici**, “Electrical Insulation in Space Environment,” *Proceedings of IEEE-Conference on Electrical Insulation and Dielectrics Phenomena*, October 2001.
46. G. B. Hillard and **H. Kirkici**, “Progress in High Voltage Design in Space” *Proceedings of IEEE-Conference on Electrical Insulation and Dielectrics Phenomena*, October, 2001.
47. H. Kirkici, “Surface Flashover Characteristics of Polycrystalline Diamond and DLC Dielectrics Thin Films in Vacuum: A Review” *Proceedings of the Sixth Applied Diamond Conference/Second Frontier Carbon Technology Conference*, August 2001.
48. Mircea V. Udrea, Mihaela Stoica, Mihai Ganciu, Ion G. Morjan, Anne-Marie Pointu, Hilal Goktas, Ali Alacakir, **Hulya Kirkici**, “Experimental study of the interaction of intense electron beams with metallic targets,” *Proc. SPIE 4430, ROMOPTO 2000: Sixth Conference on Optics* (doi:10.1117/12.432845), June 29, 2001
49. **H. Kirkici**, “Surface Flashover Characteristics of Dielectric Thin Films in Vacuum: A Review” **Invited Talk/Speaker**, *the Proceedings of ELECO’99 – International Conference on Electrical and Electronics Engineering*, Bursa, Turkey, November, 1999.
50. **H. Kirkici**, “Hollow Cathode Discharges for Plasma Light Sources,” *the Proceedings of ELECO’99 – International Conference on Electrical and Electronics Engineering*, Bursa, Turkey, November, 1999.
51. Ingram, J.E.; Hodel, A.S.; **Kirkici, H.**; Robust temperature control in the measurement of high temperature vapor pressures, *IECON 97, 23rd International Industrial Electronics, Control and Instrumentation Conference*, pp149-159, Nov 1997
52. **H. Kirkici** and D.W. Noles, “Surface Breakdown and Surface Flashover Characteristics of DCL Thin Films on Dielectric Substrate in Vacuum,” *Annual Report, IEEE Electrical Insulation and Dielectric Phenomena Conference*, pp. 19-22, Oct 1997.

53. **H. Kirkici**, "Optical emission characteristics of polycrystalline diamond during surface flashover in vacuum," the *Proceedings of the XVIIth International Symposium on Discharges and Electrical Insulation in Vacuum*, ISDEIV., Page(s): 439 –443, Jul 1996.
54. **H. Kirkici**; J.K. Coker, J. Walker, "Surface flashover characteristics of polished-polycrystalline diamond and diamond-like carbon (DLC) thin films in vacuum", *Annual Report, Conf. on Electrical Insulation and Dielectric Phenomena, 1995* pp191 -194, 1995.
55. **H. Kirkici** and E. E. Kunhardt; "Nitrogen Excitation in a Flowing Transverse Arc Jet Device Operating Based on Fast Plasma Mixing Technique," in the *Proc. of XXII Conf. on Phenomena in Ionized Gases*, Stevens Institute of Technology, Hoboken, NJ, USA, August, 1995.
56. **Kirkici, H.**; "Surface flashover characteristics of polished-polycrystalline diamond thin films in vacuum," *Proceedings of the Tenth IEEE International Pulsed Power Conference*, Vol: 1, pp255 -260, 3-6 July, 1995.
57. **Kirkici, H.**; Rose, M.F.; Ramesham, R., Askew, R.F.; "Surface breakdown characteristics of polycrystalline diamond thin films in vacuum," *Annual Report, IEEE Conference on Electrical Insulation and Dielectric Phenomena*, pp699 -704, 23-26 Oct 1994.
58. **Kirkici, H.**; Rose, M.F.; Criss, R.R.; Ramesham, R.; Askew, R.F.; "Optical spectroscopy studies of surface breakdown of polycrystalline diamond thin films in vacuum," *Annual Report, IEEE Conference on Electrical Insulation and Dielectric Phenomena*, pp606-611, 23-26 Oct 1994.
59. **Kirkici, H.**; Rose, M.F.; "High Voltage Transmission Line Operation In Simulated Lunar Environment," *Pulsed Power Conference, Digest of Technical Papers. Ninth IEEE International*, vol-1, pp59, 21-23 Jun 1993.
60. C. R. Johnson, M. F. Rose, D. C. Hill, **H. Kirkici** and B. J. Tatarchuk; "DNA Power Related Research at Auburn," *Proc. of 6<sup>th</sup> BMDO/ONR Pulse Power Meeting*, Illinois, August, 1993.

### **Conference Papers/Abstracts Published (Non-Refereed)**

1. Abdullah Eroglu and **Hulya Kirkici**, "Investigation of RF Generator Response to Plasma Instabilities," *Proceedings of the IEEE International Conference on Plasma Science*, 2014
2. Mark Lipham, Haitao Zhao, and **Hulya Kirkici**, "Breakdown Characteristics of Argon in Partial Vacuum under kHz Pulsed Voltage with Varying Duty Cycle for Point-to-Point Electrode Geometry," *Proceedings of the IEEE International Conference on Plasma Science*, 2010
3. Fang Li and **Hulya Kirkici**, "Nanodielectric Surface Flashover Studies under kHz Range Pulsed Fields in Partial Vacuum," *Proceedings of the IEEE International Conference on Plasma Science*, 2010
4. Mark Lipham, Haitao Zhao, and **Hulya Kirkici**, "High frequency breakdown for argon in partial vacuum," In the Proceedings of the IEEE International Conference on Plasma Science, 2009
5. Haitao Zhao; Mark Lipham, Ramesh Bokka, and **Hulya Kirkici**, "Optical spectroscopy studies of argon in partial vacuum high frequency pulsed voltage," In the Proceedings of the IEEE International Conference on Plasma Science, 2009

6. H.Goktas, M. Udrea, G. Oke, and **H. Kirkici**, “Carbon Coating by Double Pulsed Electron Beam Generator,” *Proceedings of the 29<sup>th</sup> IEEE International Conference on Plasma Science*, pp: 266, May 2002
7. M. Udrea, H. Goktas, **H. Kirkici**, “Intense Electron Beam Generation by Fast Filamentary Discharge,” *Proceedings of the IEEE-International Conference on Plasma Science*, June 2000.
8. D. K. Hall and **H. Kirkici**, “High Voltage Design Concepts for Launch Vehicles and Orbital Spacecraft Applications,” *Proceedings of IEEE-International High Voltage Workshop*, Newport Beach, CA, April 2000.
9. **H. Kirkici** and M. Adams, “Surface Breakdown and Surface Flashover Characteristics of Diamond and DLC Thin Films on Dielectric Substrates in Vacuum,” in *Annual Report of Conference on Electrical Insulation and Dielectric Phenomena*, 1996.
10. **Kirkici**, H.; Kralovec, J.; “Spontaneous UV-emission from nitrogen and rare-gas halogen excimers in a fast-flowing crossed-beam plasma-mixing device for pollution control.”. *Proceedings of the IEEE International Conference on Plasma Science, 1995*, pp260, Jun 1995.
11. D. Bruno, **H. Kirkici**, B. Cheo; “Investigation of Segmented Hollow Cathode Discharges,” *Conference Presentation, 43<sup>rd</sup> Gaseous Electronics Conference*, Illinois, October, 1990.

### ***Technical Reports Submitted***

*List of technical reports of my research program can be made available upon request.* Extramural grants and contracts are listed in the **GRANTS** section of the curriculum vitae. For each grant / contract at least one final report, annual reports, and several monthly reports have been published and submitted to the sponsor.

### ***PRESENTATIONS***

*All peer reviewed conference papers and abstracts published are presented by either Dr. Kirkici or one of her co-authors / graduate students, at the conferences referenced above.*

### ***INVITED SPEAKER (other than conference presentations)***

*(by USA and International universities and organizations other than conferences listed elsewhere - travel and honoraria funded by the host)*

- **Invited Speaker**, “Dielectrics and Electrical Insulation in Aerospace Power Systems,” IEEE Mobile Section Meeting, November 2016
- **Invited Speaker**, “High Frequency Effects on Insulation and Breakdown in Repetitively Pulsed Systems,” given at the Workshop On High Frequency Transients in Insulation Systems, in Conjunction with 2016 IEEE Conference on Electrical Insulation and Dielectrics Phenomena (CEIDP), October 2016
- **Invited Distinguished Speaker**, “Getting the Corner Office – Strategies for Growing as a Leader,” IEEE Women in Engineering (WiE) event at the Conference on Electrical Insulation and Dielectrics Phenomena of IEEE Dielectrics and Electrical Insulation Society’s CEIPD, October 2015

- **Invited Speaker**, “*Electrical Insulation Fundamentals - Pulsed Power and High Frequency Breakdown*,” IEEE Power Energy and Power Electronics Society Joint Chapter Meeting, July, 2015
- **Invited Speaker**, “Dielectrics and Electrical Insulation Fundamentals – Electrical Breakdown Implication on Power Systems,” IEEE Alabama Section Meeting, April 2015
- **Invited Speaker**, “*Dielectrics and Electrical Insulation Fundamentals*” sponsored by the State Key Lab. of Electrical Insulation and Power Equipment, Xi'an Jiaotong University, Xi'an, China, August 2014
- **Invited Speaker**, “*Dielectrics and Electrical Insulation Fundamentals and High Frequency Effects on Insulation*” Sponsored by the State Key Lab. of Intense Pulsed Radiation Simulation and Effect, Xi'an, China, August 2014
- **Invited Plenary Speaker**, two lectures titled “*Dielectrics and Electrical Insulation Fundamentals for Pulsed Power*” and “*High Frequency and High Field effects on Insulation.*” Presented at the Chinese Pulse Power Summer School, sponsored by Chinese Pulse Power Society and China Academy of Engineering Physics, Mianyang, China, August 2014.
- **Panel Speaker**, “*Path Way to Full Professorship and Beyond*” Auburn University WISE Institute Workshop, Auburn AL, May 2014
- Invited, **Key Note Speaker**, “*High Voltage Electrical Insulation Design and Dielectric Breakdown in Space and Aerospace Power Systems*” International Conference on Advanced Electromaterials, Jeju, Korea, November 2011
- **Distinguished Lecturer**, “*Novel Dielectrics and Advanced Electrical Insulation Technology*,” IEEE POCO (Panel of Conference Organizers), Beijing, China, June 2011
- **Panel Speaker**, “*Path way to full professorship*” WISE Institute Workshop, Auburn University, Auburn AL, March 2011
- Invited **Plenary Speaker**, “*Energy Policies and Research / Development Trends in the USA*,” Presented at the Korean Institute Electrical and Electronic Materials Engineering (KIEEME) Summer Conference, Energy Symposium, Muju Resort, S. Korea, June 16, 2010
- Invited Speaker, “*Nanodielectrics breakdown in Partial Pressure*,” LS Industrial Systems Company, Cheongju, Korea, June 17, 2010
- Invited **Seminar Speaker**, “*Renewable Energy and Smart Grid*” POSTECH University, Pohang, S. Korea, June 18, 2010
- Invited Speaker, “*Dielectric Breakdown in Partial Vacuum Environment*,” Dielectric Symposium, GE Global Research Center, May 19, 2008
- Invited **Seminar Speaker**, “*Engineering High Voltage in Space*” Mississippi State University, Electrical and Computer Engineering Department, March 6, 2007
- Invited **Lecturer**, presented a series of lectures including “*Electrical Insulation and High Frequency Breakdown in Partial Pressure*” and “*Nanodielectrics Breakdown*,” Nagaoka University, Nagaoka, Japan, March 23 through April 1, 2006
- Invited **Lecturer** of the Scientific and Technical Research Council of Turkey (equivalent of the NSF of USA) under the grant/project entitled “TOKTEN” sponsored by the **United Nations**, “Space Based LIDAR Operation and Applications,” (1) Istanbul Technical University, Istanbul, Turkey, July 15, through July 29, 2002 and (2) Canakkale 18 Mart University, Canakkale, Turkey, July 29 – August 5, 2002

- Invited **Speaker**, “*Electrical Insulation in Space Environment*,” IEEE-Albuquerque NM Section, September 2001.
- Invited **Seminar Speaker**, “*Electrical Insulation in Space*,” University of New Mexico, Electrical and Computer Engineering Dept, March 10, 2001
- Invited **Panelist** – *Panel Discussions on Information Technology* – IT Education, Colloquium on Information Technology, Montgomery, April 2000.
- Invited **Lecturer** of the Scientific and Technical Research Council of Turkey (equivalent of the NSF of USA) under the grant/project entitled “TOKTEN” sponsored by the **United Nations**. (1) Middle East Technical University, August 15, through September 1, and (2) Canakkale 18 Mart University, Canakkale, Turkey, Sept. 2 through Sept 10, 1999.

## RESEARCH GRANTS

*(Research Related only; the educational grants are listed in TEACHING section)*

*Total Extramural research funding: \$1,848,855.00 (including Educational grants listed under “TEACHING” section)*

1. Hulya Kirkici (PI), Consortium for Alabama Renewable Energy, Alabama Department of Commerce, June 2016 – July 2018
2. Robert Dean (PI), **Hulya Kirkici** (Co-PI) (40%), Thomas Baginski (Co-PI), “High-Temperature Carbon Nanotube Based Wireless Sensor Systems, EngeniusMicro Inc., through NSF-STTR program, Duration: Dec. 2013, Jan. 2015
3. **Hulya Kirkici** (PI) (100%), “Compact Plasma Switch Research,” AFOSR (Air Force Scientific Research; April 2008 – March 2011
4. **Hulya Kirkici** (PI) (80%), Anwar Ahmed (Co-PI), and Thad Roppel (Co-PI), “International Collaboration: A Novel LIDAR System Development Studies for remote Sensing,” NSF-International Opportunities for Scientist and engineers Program, April 2004 - 2008
5. **Hulya Kirkici** (PI) (100%), “Dielectric Breakdown at High Frequencies in Partial Pressure-III,” Air Force Research Lab. – through Universal Technology Corporation, (Contract# 12-UTC-S530-002401C3), September 2006 – March 2008
6. **Hulya Kirkici** (PI) (100%), “Dielectric Breakdown at High Frequencies in Partial Pressure-II,” Air Force Research Lab. – through Universal Technology Corporation, (Contract# 12-UTC-S530-002401C2); September 2004 – 2006.
7. **Hulya Kirkici** (PI) (100%), “Dielectric Breakdown at High Frequencies in Partial Pressure-I,” Air Force Research Lab. – through Universal Technology Corporation, Contract# 12-UTC-S530-002401C1, November 2003 – Sept 2004
8. **Hulya Kirkici** (PI) (100%) “Orbiter Up-Grade Program: EAPU Corona Issues”, NASA-MSFC-Power Systems Group, 2001 – April 2002.
9. **Hulya Kirkici**, “Space Power Electrical Insulation,” NASA – Inter-Governmental Personnel Agreement (IPA), April 1999-April 2000
10. **Hulya Kirkici**, “SPARCLE – LIDAR in Space,” NASA – Inter-Governmental Personnel Agreement (IPA), April 1999-April 2000.

11. **H. Kirkici** (PI) (100%), “Evaporation Rate Measurements of Low Vapor Pressure, High Temperature Materials - Experimental Studies and Instrumentation,” Army Research Office (ARO), through Space Power Institute of Auburn University, 1997 – 1999
12. **H. Kirkici** (PI) (100% of this task), “Enabling Technologies for Novel Optical Materials in Advanced Photonic Devices – Task: Studies on III-V Wide Band Semiconductor Materials for Blue-Green Laser Applications,” NSF-EPSCoR, Alabama Consortium for Optical Technology, 1996 - 1999
13. **H. Kirkici** (PI) (100%) "Ultraviolet Light Emission for Pollution Control and for Industrial Use," McDonnell Douglas Aerospace, Contract # MCDONNELL D-POZ51492, May 1995 – June 1996.
14. **H. Kirkici** (PI) (100%); "Fast Plasma Mixing Technique for CW Gas Lasers Based on Energy and Charge Transfer Collisions with Molecules" Auburn Univ. Grant-in-Aid Award, 1993-1995.
15. **Hulya Kirkici** (PI) (100%); Special Composite Cathode Materials (Task-2, Sub-Task-4, DNA-KIRKICI/DEFENSE NUCLEAR AGENCY/SPACE POWER INSTITUTE/DNA001-90-C-0127, (Task-2: Sub-task:2), Sept 1994 - 1995.
16. **Hulya Kirkici** (PI) (100%); High Voltage Breakdown (Task-1): DNAKIRKICI/DEFENSE NUCLEAR AGENCY/SPACE POWER INSTITUTE/DNA001-90C-0127, (Task-1), Sept 1993- 1994.
17. **Hulya Kirkici** (PI) (100%); Space environmental Effects: Outgassing and Effluent Effects on HV Breakdown in Space (Task-1:1 and Task 1:3), DNA-KIRKICI/DEFENSE NUCLEAR AGENCY/SPACE POWER INSTITUTE/DNA001-90-C-0127, (Task-1:1 and Task 1:3), Sept 1992 – 1993.
18. **Hulya Kirkici** (PI) (90%) and M Frank Rose; “High Voltage Transmission Line Operation in Simulated Lunar Environment,” NASA Lewis Research Center under the contract # NAG3-1330, May 1993 – Dec 1993.

## TEACHING

### *Courses Taught (Last 15 years)*

<i>Course Number</i>	<i>Course Title / Credit Hours</i>	<i>Semesters Taught</i>
ELEC 5730/6730	<b>Microelectronic Fabrication</b> (3 credit hrs.)	Spring-2014 Fall 2013 Fall2010 Fall 2008
ELEC 5970/6970	Special Topics in EE ( <b>Optoelectronics / Electro-optics and Devices</b> ) (3 cr. hrs.); Designed / developed and taught for the first time)	(Spring 2014) Fall 2011
ELEC 5970/6970	Special Topics in EE ( <b>Photonics</b> ) (3 credit hrs.) (Designed / developed and taught for the first time)	Spring 2013

ELEC 7970	Special Topics in EE ( <b>Advance Plasma Processing for Microelectronics Fabrication</b> ) (3 credit hrs.) (Designed / developed and taught for the first time in Fall-2010)	Spring 2012 Fall 2010
ELEC 2210	<b>Digital Electronics</b> (4 credit hours)	Fall 2009 Spring 2010
ELEC 2120	<b>Linear Signals and Systems</b> (3 credit-hours)	Spring-2009, Fall 2009 Spring 2010; Fall 2011, Spring 2012
ELEC 7970	Special Topics in EE ( <b>Fundamentals of Pulsed Power Engineering and Technology</b> ) (3 credit hrs.) (Designed / developed and taught-first time in Spring-2009)	Spring-2009 Spring-2011
ELEC 6970	Special Topics in Electrical Eng. ( <b>Plasma Engineering</b> ) (3 credit hrs.)	Fall 2008
ELEC 2020	<b>Electrical Engineering Lab II</b>	Fall-2002 through Fall 2008
ELEC 2010	<b>Electrical Engineering Lab I</b>	Fall 2001 through Spring 2008
ELEC 3320	<b>Electromagnetics for Wireless Communications</b>	Fall 2000, Spring 2001
ELEC 3210	<b>Fundamentals of Applied Electromagnetics</b>	Fall 2000, Spring 2001
ELEC-7980	Master of Electrical Engineering Project	every semester
ELEC-7990	Research and Thesis in EE	every semester
ELEC-8990	Research and Dissertation in EE	every semester

## ***Grants (Related to Teaching – not included in Research Grants listing)***

1. H. Kirkici (PI), “International Cooperation Using Educational Technology in Graduate Studies in Computer Science and Technology,” US Department of Education, EC-US Cooperative Program in Higher Education, Budget Total: \$216,421.00, (contract # ED03-P116J030029) August 2003 – August 2008
2. Kirkici, H. “FIPSE Conference – Meeting of US Partners,” US Department of Education – FIPSE, (Total Budget \$23,000.00), Feb 2006 – May 2006.

## ***Courses Developed***

**ELEC 7970 - Pulse Power Science and Engineering:** Design and applications of systems where electrical energy is stored for a long time period and then delivering in a very short time to a load resulting in high peak power. Intended for those pursuing careers in government laboratories and other advanced research industries.

**ELEC 6970 – High Voltage Engineering -** Introductory course in high-voltage engineering that includes the concepts of power transmission, voltage stress, and testing with various types of voltages, in addition to the breakdown of gaseous, liquid, and solid insulation.

**ELEC 6970 / 7970– Electro Optics -** Focuses on the fundamental principles of light; ray optics, wave optics, and electromagnetic optics; the effects of electromagnetic-field on optical materials such as changes in refraction or birefringence resulting in guided wave propagation,

**ELEC 7730 Advanced Plasma Processing for Microelectronic Fabrication -** focuses on the plasma reactor design and process optimization, plasma assisted etching and deposition processes, plasma assisted oxidation and surface modification processes, plasma polymerization, and plasma induced damages to semiconductor devices.

## ***Graduate Students (as Major Advisor)***

### ***PhD Students Graduated:***

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<b>Huirong Li,</b>	Ph.D. in ECE, August 2014,
<b>Dissertation Title:</b>	<i>“Carbon Nanotubes (CNTs) as Electron Emitters for Plasmas Operating in Subatmospheric pressure under DC and Pulsed Fields”</i>

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Haitao Zhao	Ph.D. in ECE, August 2012 (with: Intel Corporation, Portland, OR)
<b>Dissertation Title:</b>	<i>“Design and Construction of Carbon NanoTubes (CNTs) Triggered Pseudospark Switch”</i>

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Kalyan Koppisetty	Ph.D. in ECE, August 2008 (with: General Electric-HealthCare, Wisconsin.)
<b>Dissertation Title:</b>	<i>“Breakdown Studies of Helium and Nitrogen in Partial Vacuum Subject to Non-Uniform, Unipolar Fields in the 20-220 kHz Range”</i>

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Mert Serkan Ph.D. in ECE, December 2007 (with: Aselsan Corporation, Ankara, Turkey)  
**Dissertation Title:** *“Laser Beam Shaping Optical System Design Methods and Their Applications in Edge-Emitting Semiconductor Laser-Based LIDAR Systems”*

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Shida Tan Ph.D. in ME, May 2002 (currently with: Intel Corporation, San Jose, CA)  
**Dissertation Title:** *“Studies of Selected Organic Nonlinear Optical and Light Emitting Materials”*

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### ***MS / MEE Students Graduated:***

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**Kalyan Koppisetty** MS in EE, Aug. 2004 (with General Electric-HealthCare, Wisconsin)  
Thesis Title: *“Gaseous Breakdown at High Frequency under Partial Vacuum”*

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**Aditya Goel** MS in EE Aug. 2004 (with Brookhaven National Lab, NY)  
Thesis Title: *“Pulse Electric Field Studies of Bio-Dielectric Weed Seeds”*

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**Kelly Dobson** MEE Dec. 2004 (with Virginia Tech University – Research Associate)  
Project Title: *“Synthetic Aperture Radar Images: Enhancing Speckle Reduction”*

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**Esin B. Sozer** MS in ECE Dec. 2007 (with Old Dominion Univ.-Post Doc Researcher; she received her Ph.D. from Univ. Southern California)  
Thesis Title: *“Gaseous Discharges and Their Applications as High Power Plasma Switches for Compact Pulsed Power Systems”*

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**Melike Onat-Dizbay** MEE December 2008 (PhD Program with Univ., AL - Birmingham)  
Project Title: *“Characteristics of Laser Beam Propagation through Plasma Generated by a Wire-Hollow Cathode”*

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**Shao Mao Li** MS in ECE, May 2010, (with Auburn Univ., PhD program in ISYE)  
Thesis Title *“Cold Cathode Materials for Pseudospark Switches”*

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**Mark Lipham** MS, May 2010, (currently with: Electronics Company, USA)  
Thesis Title: *“Breakdown Studies for Argon in Partial Vacuum Range for kHz Pulse Train”*

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**Ramesh Bokka** MS in ECE, May 2011 (Electromaterials Company CO, USA)  
Thesis Title: *“Carbon Nanotube Cold Cathodes for Applications under Vacuum to Partial Pressure in Helium and Dryair”*

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**Fang Li** MS in ECE, May 2012 (currently in San Jose, CA)  
Thesis Title: *“Surface Flashover Studies of Dielectric Polymer Nano-Composites under kHz Unipolar Pulsed Fields in Partial Vacuum”*

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<b>Zhenhong Li</b>	MS in ECE, August 2012 (with: Otis Elevators, Connecticut)
Thesis Title:	<i>“Pulse Breakdown Phenomena in Partial Vacuum”</i>

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<b>Chung-Nan Tsai</b>	MS in ECE, December 2012 (currently KLA-Tencor Corp)
Thesis Title:	<i>“Selective and Non-Selective Synthesis of Carbon Nanotubes (CNTs) by Chemical Vapor Deposition (CVD) Characterization: Catalyst and Underlayers Effects on Field Emission Properties”</i>

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<b>Ming Zhang</b>	MS in ECE December 2012 (currently in China)
Thesis Title:	<i>“Beam Collimation and Intensity Uniformization of Laser Diode Array Using Lenslets”</i>

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<b>Rujun Bai</b>	MS in ECE May 2013 (currently in PhD program Auburn Univ)
Thesis Title:	<i>“Nonlinear Field Enhancement Factor of Carbon Nanotubes (CNTs) in Vacuum and Partial Pressure”</i>

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<b>Baka Yakupoglu</b>	MS in ECE, December 2013 (currently in PhD prog at Auburn Univ.)
Thesis Title:	<i>“Synthesis of Carbon Nanotubes (CNTs) as thermal interface material”</i>

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<b>Befkadu T. Gebru</b>	MEE, December 2013 (currently with Verizon Wireless, Atl.)
Project Title:	<i>“Surface Flashover of Nanodielectrics in Partial Vacuum”</i>

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<b>XiangChao, Zhu</b>	MS in ECE May 2014 (currently with UC Santa Barbara PhD Program)
Thesis Title:	<i>“Laser Beam Shaping and Transformation Using Freeform Surface Design”</i>

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<b>Ashritha Dugyala</b>	MEE Dec 2014 (this student selected the new non-thesis & no-project option program)
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<b>Venkata Satya Sandep Sharma Doranala</b>	MEE Aug 2015 (this student selected the new non-thesis & no-project option program)
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<b>Michael Jung</b>	MS in ECE December 2015 (currently with Newel Brand, Atlanta)
Thesis Title:	<i>“Carbon Nanotube Vacuum Tube Diode RFID Tag”</i>

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<b>Michael Moxley</b>	MS in ECE May 2016 (currently with Northrop Grumman, CA)
Thesis Title:	<i>Carbon Nanotube Based Vacuum Diode Characteristics at Elevated Temperatures</i>

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YuXuan Chen      MS in ECE      August 2016 (currently in PhD Program, Oklahoma Univ)  
Thesis Title:      *Electrical Breakdown of Gases in Subatmospheric Pressures*

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***Graduate Students – Currently Advising as Major Advisor***

Baka Yakupoglu      PhD      (Since Fall 2013)  
Thesis Topic:      *Carbon Nanotube fabrication and applications in High Temperature electronics*

***Graduate Students serving as Thesis / Dissertation Committee Member***

Rui Guo      PhD in ECE      (Advisor Dr. Soo Young Lee)      Expected graduation Dec 2017  
Thesis Topic: *Analytic Derivation and Minimization of Line Edge Roughness in Electron-beam Lithography*

***Graduate Students Graduated (served as Thesis / Dissertation Committee Member)***

- Jianliang Hao      (Advisor: Dr. Wilamowski)      MS      ECE      Dec 2015
- Byron Caudle      (Advisor: Dr. Baginski)      PhD      ECE      May 2013
- TianTian Xie      (Advisor: Dr. Wilamowski)      PhD      ECE      Dec 2011
- Hai Lu      (Advisor: Dr. Baginski)      MS      ECE      Aug 2011
- Hao Yu      (Advisor: Dr. Wilamowski)      PhD      ECE      May 2010
- Michael Grady      (Advisor: Dr. Wentworth)      MS      ECE      Aug. 2010
- Hyun Joong Lee      (Advisor: Dr. Wilamowski)      MS      ECE      May 2010
- Nam Dinh Pham      (Advisor: Dr. Wilamowski)      MS      ECE      Dec. 2009
- Anne Mackenzie      (Advisor: Dr. Rao)      PhD      ECE      Dec. 2008
- Aroldo Couto      (Advisor: Dr. Roppel)      MS      EE      Aug. 2003
- Brialn A. Winfield      (Advisor: Dr. Roppel)      MS      EE      Aug. 2002
- Samuel Glenn      (Advisor: Dr. Riggs)      MS      EE      Dec 2001
- Ramakrishnam Narendran      (Advisor: Dr. Roppel)      MS      EE      May 2000
- Kevin Dunn (      Advisor: Dr. Roppel)      MS      EE      Dec. 1998
- Fa Dai      (Advisor: Dr. Wu)      PhD      EE      Dec. 1997
- G. (Joey) W. Jarrel      (Advisor: Dr. Roppel)      MS      EE      Aug. 1996

***PhD student Committees Serving as “University Reader”  
Representing the Graduate School***

- Joshua Guess      (Advisor: Dr. Bhavinani)      PhD      Mechanical Eng.      Dec 2015
- Water Casper      (Advisor: Dr. Blumenthal)      PhD      Chemistry      Aug 2015
- Scott R. Bounds      (Advisor: Dr. Knowlton)      PhD      Physics      Aug 1997

### ***Visiting Scholars supervised at Auburn University***

- Summer 2013    **Ali Osman Ozkan, Assistant Professor**  
Necmettin Erbakan University, Electrical Engineering Dept. Konya Turkey
- Project Title    *Surface breakdown of Nanodielectrics in sub-atmospheric pressure under kHz frequency High Voltage.*
- Summer 2013    **Muciz Ozcan, Associate Professor**  
Necmettin Erbakan University, Electrical Engineering Dept. Konya Turkey
- Project Title    *Surface breakdown of Nanodielectrics in sub-atmospheric pressure under kHz frequency High Voltage.*
- Fall 2015        **Kevin Schmid, Undergraduate (senior) student**  
Hochschule Mannheim University of Applied Sciences - Germany
- Project Title    *Properties, Application and Fabrication of Carbon Nanotubes: Manufacturing of Wafers Respectively Diodes Including the Field Emission Testing*
- Spring & Fall 2016    **Alper Kara -Post-Doctoral Research Associate** at Istanbul  
Technical University, Istanbul Turkey
- Project Title    *Surface flashover characteristics of nano-dielectrics in sub-atmospheric pressure*
- Fall 2016        **Liang Yang, PhD Candidate of**  
Dalian University of Technology, China
- Project Title    *Surface flashover characteristics of nano-dielectrics in sub-atmospheric pressure under repetitively posed fields*

### ***Awards to My Graduate Students:***

- Travel Grants to my MS student YuXuan Chen, and PhD Student Baha Yakupoglu to attend and present their research work at the 2016 IEEE International Power Modulator and High Voltage Conference, San Francisco, CA, July, 2016
- Travel Grants to my PhD students Baha Yakupoglu and Michael Jung, to attend and to present their research work at the 2014 IEEE International Power Modulator and High Voltage Conference, Santa Fe, NM, June, 2014
- Travel Grants to my PhD and MS students, Huirong Li and Rujun Bai, to present their research work at the 2012 IEEE International Power Modulator and High Voltage Conference, San Diego, CA, June, 2012

- **IEEE Tom Burkes Student Award to my PhD student**, Kalyan Koppisetty, "*for contributions in repetitive pulsed breakdown studies in low pressure environments*," at the 2008 IEEE IPMHVC, Las Vegas, Nevada, May 29, 2008
- Travel Grants **to my PhD and MS students**, HaoTao Zhao and Mark Lipham, to present their research work at the 2009 IEEE International Plasma Science Conference, San Diego, CA, June 1-5, 2009
- Travel Grants **to my MS students**, ShaoMao Li and Mark Lipham, to present their research work at the 2008 IEEE Power Modulator and High Voltage Conference, Las Vegas, Nevada, May 27-30, 2008
- Travel Grants **to my MS student**, Esin Sozer, to present her research work at the 2007 IEEE International Pulsed Power Conference, Albuquerque, NM, June 17-22, 2007
- **Graduate Fellowship Award** of IEEE Dielectrics and Electrical Insulation Society **to my PhD student**, Kalyan Koppisetty, for "*studies of high frequency breakdown under non-uniform fields in partial pressure*", for the 2002-2003 academic year.

## PROFESSIONAL ACTIVITIES / SERVICES

### *Outreach Activities:*

- Guest Lecturer: "Preparing Future faculty" class – April 20, 2015
- Guest Lecturer – Auburn Global Program – Lecture title: My Career Path From Physics to Electrical Engineering as an International Student, November 2015
- Organized and Hosted U.S. Department of Education **FIPSE Conference**, at Auburn University Hotel and Conference Center, Auburn, AL, February 2006
- Supported and Advised students in Hosting **SWE Region D Conference** at Auburn University, March 11-13, 2005
- AU Outreach Office: Elderhostel Program, Course Taught: "*Harnessing the Universe: The science of Engineering*" March 1995
- AU Outreach Office: Elderhostel Program, Course Taught: "*Space Research Impact on Technology and Daily Lives*" March 1996
- AU Outreach Office: AU World Affairs Youth Seminar Program, Seminar Title: "*Life in Turkey*" Summer 1995

### *University and Departmental Committees*

- University of South Alabama, President's Office – Chief Diversity and Inclusion Officer Search Committee member, June 2017 - present
- University of South Alabama, College of Engineering – **Scholarship Committee Member**, Aug 2016 – present
- University of South Alabama, "**Global Technology Forum**" Event planning strategies committee Member (AdHoc committee formed by the University Senior Vice President and Provost), Jan 2017 – May 2017

- Auburn University – **Senate Committee on Administrator Evaluation**, Fall 2015 to 2016
- Faculty Search Committee Member, ECE Department, Fall 2015 to 2016
- Auburn University’s **Senate Committee on Faculty Handbook Revision** Member, Aug. 2014 to 2016
- Auburn University’s **University Strategic Planning Initiatives Committee** Member – priority-: strategic plan on faculty success (representing the university senate), August 2014 to 2016
- **Commission on Women in Academic Careers Member**, appointed by the Provost, Fall 2014 to 2016
- **Faculty judge** of research paper presentation, Auburn University Graduate Research Forum, Sponsored by the Graduate School, Spring 2014
- **Faculty Judge** of graduate student research presentation, College of Engineering Research Showcase Program, Fall 2013
- Auburn University’s **Women in Science and Engineering (WISE) Institute Steering Committee** Member, June 2012 to present
- Auburn University’s **Radiation and Safety Committee**, Fall 2009 – 2015
- **Faculty Advisor**, Turkish Student Organization, Jan 2010 – Feb 2011
- **ECE Curriculum and Assessment Committee**, 2008 to present
- **ECE Lab Committee** (2002 to 2012)
- Auburn University’s **Competitive Research Grant Committee**, 2003-2006
- **Faculty Advisor**, SWE (Society of Women Engineers), 1998 to 2007
- **Hosted SWE Region-D Conference** at Auburn University, 2005
- Faculty Search Committee Member (2000 to 2008: on-and-off) of Electrical and Computer Engineering, Mechanical Engineering and Computer Science and Software Engineering.

### ***International / National Professional Offices Held***

- Member – IEEE Periodicals Review and Advisory Committee (PRACT) 2016 – present
- Member – *IEEE Access* (open access journal of IEEE) Editorial Board, 2014- present
- **Vice President of Technical Operations**, IEEE Sensors Council, Jan 2013 – Dec 2015
- Member-at-Large, IEEE PSPB (Publication Services and Products Board), Jan 2010 to Dec 2016
- **Treasurer** and Finance Chair, IEEE PSPB, Jan 2011 to Dec 2014
- Member, IEEE TAB Strategic Planning Committee (SPC), 2013
- Chair, Ad-Hoc on “Business Model”, part of IEEE-TAB SPC, 2013
- Member, IEEE Finance Committee, Jan 2011 to Dec 2014
- Member, IEEE Technical Activities Board (TAB) Finance Committee), Jan 2010 to 2014
- AdCom Member-at-Large, IEEE-Sensors Council, Jan. 2013 to Dec 2013
- Member, IEEE Conferences Committee, Jan 2010 to Dec 2012
- **President**, IEEE-DEIS Jan 2009 and 2010 (term ending in December 2010)
- Vice President - Administrative, IEEE-DEIS Jan 2007 – December 2008
- Vice President - Technical Activities, IEEE-DEIS Jan 2005, December 2006
- Secretary and Ex-Com Member of IEEE- DEIS, Jan. 2000 to Dec 2004

- AdCom Member IEEE-DEIS Jan. 1998 - Jan. 2001 (first term), and Jan. 2001- 2004 (second term)
- Vice Chair and Treasurer of IEEE-CEIDP 2004 and 2005
- Secretary of IEEE-CEIDP 2002 and 2003
- Technical Program Committee Member IEEE-CEIDP (Jan. 1995-2001)
- Interim-Vice-Chair and Treasurer of IEEE-CEIDP-2001
- Board Member IEEE-CEIDP 1997 – 2000 (first term), and 2000 – 2002 (second term)
- Member, IEEE-Pulsed Power Science and Technology Committee, Jan 2000 to 2007.
- AdCom Member, IEEE-Sensors Council, DEIS Rep to Sensors Council, Oct. 2007 to 2010.

## ***Conference Activities***

### ***As Conference Chair / Co-Chair***

- **Co-Chair**, International Conference on Advanced Electromaterials (ICAE 2011), Jaju, South Korea, Nov. 2011
- General Chair of IEEE-Power Modulator Conference, San Francisco, CA, 2004
- General Chair of 2002-IEEE-High Voltage Workshop, Los Angeles, CA, 2002
- Chair – FIPSE Meeting of the US Partners, Auburn University, Auburn, AL., 2006
- Vice-Chair & Treasurer, IEEE Conference on Electrical Insulation and Dielectrics Phenomena (CEIDP), 2004 and 2005
- Interim-Vice-Chair and Treasurer of IEEE- Conference on Electrical Insulation and Dielectrics Phenomena (CEIDP) 2001
- Executive Committee Chair of IEEE Power Modulator Conference, June 2005 to June 2014

### ***As Technical Program Committee Chair / Membership / Session Chair***

- **Chair, Technical Program Committee**, IEEE Power Modulator and High Voltage Conference, to be held in Santa Fe, June 2014
- Technical Program Committee Member, IEEE Pulsed Power Conference, Arlington TX, 2015
- Technical Program Committee Member, IEEE Conference on Dielectrics and Electrical Insulation Phenomena, 2014 & 2015
- Technical Program Committee Member, IEEE Pulse power and Plasma Science Conference, San Francisco, 2013
- Session Organizer and Chair, Dielectrics and Insulation Session, IEEE Pulse Power and Plasma Science Conference, June 2013
- Technical Program Committee Member, IEEE Conference on Dielectrics and Electrical Insulation Phenomena, 2013
- Technical Program Committee Member IEEE Plasma Science Conference, 2012
- Plenary Session Chair, 2012 IEEE Power Modulator and High Voltage Conference, 2012
- Technical Program Committee Member, IEEE Power Modulator and High Voltage Conference, 2012

- Technical Program Committee Member IEEE Plasma Science Conference, 2010
- **Session Chair** "Insulation and Dielectric Breakdown" oral session, IEEE Plasma Science Conference, 2010
- Technical Program Committee Member, 2010 IEEE Power Modulator and High Voltage Conference, 2010
- Session Chair, "High Voltage Design" Oral session, IEEE Power Modulator and High Voltage Conference, 2010
- Session Chair & Technical Program Comm. Member, IEEE Plasma Science Conference, 2009
- Technical Program Committee Member, IEEE CEIDP (Conference on Electrical Insulation and Dielectrics Phenomena), 2008 to present
- Session Chair, "Dielectrics and Insulation in Pulsed Power Systems", 2009 IEEE International Plasma Science, June 2009
- Session Chair- Oral Session-1, IEEE-CEIDP 2005
- Session Chair, The 8<sup>th</sup> International Conference on Optimization of Electrical and Electronic Equipment OPTIM 2002, Brasov, Romania, May 16-17 2002 --Session 1G (Power Quality).
- Session Organizer, "Aging," IEEE-Conference on Electrical Insulation and Dielectrics Phenomena, Victoria, CA, October 2000
- Session Chair – IEEE – Intern. High Voltage Workshop – Newport Beach, CA, April 2000.
- Session Chair - ELECO'99 – International Conference on Electrical and Electronics Engineering, Bursa, Turkey, November, 1999.
- Local Chair of IEEE-CEIDP 98 (Conference on Electrical Insulation and Dielectrics Phenomena, Oct.1998
- Session Organizer, "Measurement Techniques," IEEE-Conference on Electrical Insulation and Dielectrics Phenomena, San Francisco, CA, October 1997

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### ***Other Conference Related Positions Held***

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- International Advisory Committee Member, International Conference on Advanced Electromaterials (ICAE 2017), Jaju, South Korea, Conference Date: Nov 2017
- International Advisory Committee Member, International Conference on Advanced Electromaterials (ICAE 2013), Jaju, South Korea, Conference Date: Nov. 2013
- Publicity Chair of the IEEE Power Modulator and High Voltage Conference, 2010
- Treasurer of IEEE-Power Modulator Conference, 2006
- International Steering Committee Member, The 8<sup>th</sup> International Conference on Optimization of Electrical and Electronic Equipment OPTIM 2002, Brasov, Romania, May 16-17 2002
- International Steering Committee Member, International Conference on Electrical Charge in Solids (CSC) 1998-99, France, 1999

### ***Editorial Positions***

- **Lead Guest Editor** of Power Modulators Special Issue (August 2017 Issue) of *IEEE Transactions on Dielectrics and Electrical Insulation*, Feb 2016 – Sept 2017
- **Editor Board Member of IEEE Access**, (open access interdisciplinary journal of IEEE), June 2013 – Dec 2016 (1st term) and Jan 2017 to present
- **Associate Editor of IEEE Trans. on Dielectrics and Electrical Insulation**, 2012 to present

- **Co Editor-in-Chief, *Trans. of Electrical and Electronic Materials***, Jan. 2010 – present
- **Advisory Board Member, Istanbul University-Journal of Electrical and Electronics**, 2010 to present
- **Guest Editor** of Power Modulators Special Issue (August 2009 Issue) of *IEEE Transactions on Dielectrics and Electrical Insulation*, Dec 2007 to 2009
- **Associate Editor of *IEEE Trans. on Dielectrics and Electrical Insulation***, 1997 to 2007
- **Publication Chair / Proceedings Editor** of 2008 IEEE International Power Modulator Conference, June 2007 to Nov 2008
- **Guest Editor, *IEEE-Transactions on Plasma Science***, Power Modulators and Repetitive Pulsed Power Special Issue (August 2004 issue) June 2004-Nov. 2005
- **Guest Editor, *IEEE-Transactions on Plasma Science***, Pulsed Power Science and Technology Special Issue (October 2002 issue) June 2001-Nov. 2002

### ***Reviewer for Transactions and Journals***

- IEEE Journals and Transactions: (Trans. on Dielectrics and Electrical Insulation, Trans. on Plasma Science, Trans. on Aerospace Electronics, Sensors Journal)
- Journal of Applied Physics & Journal of Applied Optics
- Other Journals by Elsevier Publishing (Plasma Physics, Optics, etc.)

### ***Grants (Related to Professional / Conference Activities)***

*(not listed in research grants listing)*

- Hulya Kirkici, (PI), Funding to support 2010 IEEE Power Modulator and High Voltage Conference, from Naval Research Lab, \$10,000
- Hulya Kirkici (PI), “Power Modulator Conference (26<sup>th</sup> Power Modulator Symposium and 2004 High Voltage Workshop),” Army Research Office/AMSRL-RO-RI, Total Budget: \$8,064, May 2004 - June 2005.
- Hulya Kirkici (PI), “Power Modulator Conference (26<sup>th</sup> Power Modulator Symposium and 2004 High Voltage Workshop),” Los Alamos National Laboratory, (Total Budget: \$5,000.00), September 2004 - May 2005.
- Thad Roppel and Hulya Kirkici, “Power Modulator Conference (26<sup>th</sup> Power Modulator Symposium and 2004 High Voltage Workshop),” Department of Energy, (Total Budget: \$5,000.00), September 2004 - May 2005.
- Fund raising activities for Student Excellence Award from industry, (General Atomics, HVR, Stangenies, Diversified, and similar companies) \$2,100 (bi-annually)
- Fund raising activities – Received \$42,000 grant on behalf of Power Modulator Conference from Government Agencies and National Laboratories (ARO, AFOSR, ONR, AFRL, Sandia) in 2006
- Fund raising activities – Received \$33,000 grant on behalf of Power Modulator Conference from Government Agencies and National Laboratories (ARO, U.S.DoE, AFRL, Sandia, LANL) in 2004
- Fund raising activities – Received \$9,000 grant on behalf of Pulsed Power Conference for student travel from Industry in 2005

### ***Publications Related to Professional Activities:***

- H. Kirkici, *Editorial, IEEE Electrical Insulation Magazine*, Vol. 33, No: 3, pp: 3 - 3, 2017
- H. Kirkici, *Editorial, IEEE Electrical Insulation Magazine*, Vol. 26, No: 4, pp: 3 - 3, 2010
- H. Kirkici, *Editorial, IEEE Electrical Insulation Magazine*, Vol. 26, No: 2, pp: 3 - 4, 2010
- H. Kirkici, *Editorial, IEEE Electrical Insulation Magazine*, Vol. 25, No: 1, pp: 3 - 3, 2009
- H. Kirkici, *Editorial, IEEE Electrical Insulation Magazine*, Vol. 25, No: 4, pp: 3 - 3, 2009
- H. Kirkici, *DEIS news [obituary and award]* IEEE Electrical Insulation Magazine Volume: 26, Issue: 1, Page(s): 42 - 43, 2010,
- Schweickart, D.L.; Liffing, M.; Walko, L.; Belnap, C.; Brockschmidt, A.; Schweickart, D.; Sebo, S.A.; Bowers, J.S.; Kirkici, H.; *William Dunbar [a tribute]*, Conference Record of the 25th International Power Modulator Symposium, and 2002 High-Voltage Workshop, Page(s): 69 - 81, 2002,
- Kirkici, H.; Neuber, A.; Umstatted, R.J.; *Guest Editorial Special Issue on Power Modulators and Repetitive Pulsed Power*, IEEE Transactions on Plasma Science Volume: 33, Issue: 4, Part: 1, Page(s): 1134 - 1135, 2005
- Hulya Kirkici and Jane Lehr, *Guest Editorial Special Issue on Pulse Power*, IEEE Transactions on Plasma Science, Issue: 4, Part: 1, 1134 - 1135, 2002
- Hulya Kirkici, Chungqi Chen, and Sang H. Nam, *Guest Editorial Special Issue on Power Modulators and Repetitive Pulsed Power*, IEEE Transactions on Dielectrics and Electrical Insulation, Volume 5, 2009
- Kirkici, H.; *Editorial by conference chair*, Conference Record of the Twenty-Sixth International Power Modulator Symposium, 2004 and 2004 High-Voltage Workshop Publication Year: 2004, Page(s): i - ii
- Kirkici, H.; *Preface* Conference Record of the Twenty-Sixth IEEE International Power Modulator Symposium, 2004 and 2004 High-Voltage Workshop Page(s): 0-3, 2004

### ***Other Volunteer / Professional / Community Activities:***

***President, Power Modulator Conference, Inc. (a non-profit organization), 2004 to present:***

President and Founder of Power Modulator Conference, an Alabama registered non-profit company to foster educational and research activities in power modulator and high voltage areas. The nonprofit organization funds student travel grants to conferences. It also established "High Voltage Student Excellence" award given bi-annually at the IEEE Power Modulator and High Voltage Conference. Student awards and travel grants are funded by the non-profit through fund raising from industry.

### ***Other Extracurricular Activities***

***Soccer Coach*** – Auburn City Youth Soccer League (under age-6 group), 1995 – 1999

***Oil painting and Drawing*** –