

Honors and Awards

- x Fellow-I (for contributions to high frequency, high field dielectric breakdown and electrical insulation for space and aerospace power systems & O D V V of 2017
- x 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-forster-distinguished-service-award.html>)
- x Distinguished Lecturer, IEEE Nuclear and Plasma Society (NPSS), <http://ieeenuclear.org/distinguished-lecturers/> April 2015 - present
- x Recipient of the IEEE William G. Dunbar Award for high voltage and high frequency presented at the 2014 IEEE International Power Modulator and High Voltage Conference, June 2014.
- x 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
- x IEEE Distinguished Lecturer "Novel dielectrics and advanced electrical insulation technology", presented at the 2014 IEEE International Power Modulator and High Voltage Conference, June 2014.
- x 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
- x Recipient of the IEEE Sol Schneider Award "for continuing technical and administrative leadership in the power modulator and high voltage community" presented at the 2010 IEEE Power Modulator and High Voltage Conference, May 2010
- x Recipient of Honorary Mention for the 2005 Outstanding Advisor Award presented by the SoT /F1 11.04 Tf BT

- IEEE Electron Devices Society
- IEEE Education Society
- IEEE Industrial Applications Society
- IEEE Photonics Society (formerly Lasers and Electro Optics Society)

x American Physical Society (APS), Member 1984-

5. H. Zhao and H. Kirkici & D U E R Q 1 D Q R W X E H & 1 7 W U L J J E E H G 3 V H X G
Transactions on Plasma Science, Vol. 40, issue: 9, pp: 2225-2231, 2012
6. Hulya Kirkici and Bruce Bernstein, Invited Paper (6 pages) "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 Problem in the USA"

20. H. Kirkici, M. D. D. & K. D. R. X. S. N. D. ([S. H. U. L. P. H. Q. W. D. O. 6. W. X. G. \ R. O. 9. R. O. W. D. J. H. % U. H. D. N. G. R. Z. Q. D. Q. G. (O. H. F. W. U. L. F. D. O. , Q. V. I. E. E. E. D. W. L. R. Q. D. Q. G. Transactions on Dielectrics and Electrical Insulation, vol. 3, no:1, pp11-25 February, 1996
21. H. Kirkici, M. D. D. & K. D. R. X. S. N. D. ([F. L. W. D. W. L. R. Q. O. H. F. K. D. Q. L. V. P. R. I. + \ G. U. R. J. H. Q. % D. O. P. ' H. Y. L. P. Physical Review E vol. 51, pp628-92, June, 1995.
22. H. Kirkici, M. D. D. & K. D. R. X. S. N. D. ([S. H. U. D. W. L. S. E. G. M. E. N. T. E. D. H. U. L. D. W. C. A. T. H. O. D. E. W. L. R. Q. I. E. E. E. Transactions on Plasma Science, vol. 23, June, 1995.
23. G. Schaefer and H. Kirkici, M. D. D. & K. D. R. X. S. N. D. ([F. L. W. D. W. L. R. Q. O. H. F. K. E. E. E. J. O. U. R. N. A. L. R. I. 2 \ J. H. Q. of Quantum Electronics, vol. QE-26, pp141-24, 1990.
24. H. Kirkici, M. D. D. & K. D. R. X. S. N. D. ([U. H. L. V. V. D. Q. G. * 6. F. K. D. H. I. H. U. % K. D. U. J. H. 7. U. D. I. O. N. S. A. N. D. M. % U. D. Q. F. K. L. Q. J. 5. D. W. L. R. Q. I. E. E. E. J. O. U. R. N. A. L. O. F. A. P. P. L. I. E. D. P. H. Y. S. I. C. S. Q. 6. 7. (10). D. W. H. G. ' pp604144, 1990.
25. G. Schaefer and H. Kirkici, M. D. D. & K. D. R. X. S. N. D. ([F. L. W. D. W. L. R. Q. O. H. F. K. E. E. E. J. O. U. R. N. A. L. O. F. Q. U. A. N. T. U. M. E. L. E. C. T. R. O. N. I. C. S. / D. V. H. E. E. E. J. O. U. R. N. A. L. O. F. Q. U. A. N. T. U. M. E. L. E. C. T. R. O. N. I. C. S. vol. QE-25, pp234-49, 1989.
26. H. Kirkici, M. D. D. & K. D. R. X. S. N. D. ([O. D. E. R. U. D. W. L. R. Q. R. I. W. K. H. 2. S. W. L. F. D. O. 3. D. U. D. P. I. N. T. R. A. F. D. Y. L. W. \) U. H. T. X. H. O. G. A. ' T. U. R. K. I. S. H. J. O. U. R. N. A. L. O. F. P. H. Y. S. I. C. S. A. N. D. A. S. T. R. O. P. H. Y. S. I. C. S. vol. 10, no: 2, pp13-135, 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, Plasma Initiation by Carbon Nanotubes (CNTs) the Cold Cathode in Pseudospark Discharge Proceedings of 2014 IEEE International Power Modulator and High Voltage Conference (4-pages), June 2014
3. E. B. Yakupoglu and Hulya Kirkici, Plasma Initiation by Carbon Nanotubes (CNTs) the Cold Cathode in Pseudospark Discharge Proceedings of 2014 IEEE International Power Modulator and High Voltage Conference (4-pages), June 2014
4. Michael Jung, Thomas Baginski,

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 ³ 1 R Q O L Q H N D U H e i n P O S t e r P o t e n t i a l s o f C a r b o n N a n o t u b e s & 1 7 V L Q 9 D F X X P D Q G i n t h e P r o c e e d i n g s o f 2 0 1 2 I E E E I n t e r n a t i o n a l

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. Kalyan Koppisetty, Hulya Kirkici DQG 'DQLHO 6FKZHLFN DUW 33XOV

53. H. Kirkici, "Breakdown Characteristics of Polycrystalline Diamond and Diamond Films Under Pulsed Voltage," Proceedings of the Ninth International Symposium on Discharges and Electrical Insulation in Vacuum (ISDEIV.), Page(s): 439-443, Jul 1996.
54. H. Kirkici; J.K. Coker, J. "Breakdown Characteristics of Polycrystalline Diamond and Diamond Films Under Pulsed Voltage," Report., Conf on Electrical Insulation and Dielectric Phenomena, 1995, pp191-194, 1995.
55. H. Kirkici, "Breakdown Characteristics of Polycrystalline Diamond and Diamond Films Under Pulsed Voltage," Proceedings of the Tenth IEEE International Pulsed Power Conference, 1995, pp255-260, 36 July, 1995.
57. Kirkici, H.; Rose, M.F.; Ramesham, R., "Breakdown Characteristics of Polycrystalline Diamond and Diamond Films Under Pulsed Voltage," Proceedings of the Tenth IEEE International Pulsed Power Conference, 1995, pp255-260, 36 July, 1995.
58. Kirkici, H.; Rose, M.F.; Criss, R.R.; Ramesham, R., "Breakdown Characteristics of Polycrystalline Diamond and Diamond Films Under Pulsed Voltage," Proceedings of the Tenth IEEE International Pulsed Power Conference, 1995, pp255-260, 36 July, 1995.
59. Kirkici, H.; Rose, M.F.; Criss, R.R.; Ramesham, R., "Breakdown Characteristics of Polycrystalline Diamond and Diamond Films Under Pulsed Voltage," Proceedings of the Tenth IEEE International Pulsed Power Conference, 1995, pp255-260, 36 July, 1995.
60. C. R. Johnson, M. F. Rose, D. C. Hsu, Kirkici, H., "Breakdown Characteristics of Polycrystalline Diamond and Diamond Films Under Pulsed Voltage," Proceedings of the Tenth IEEE International Pulsed Power Conference, 1995, pp255-260, 36 July, 1995.

Conference Papers/Abstracts Published (Non-Refereed)

1. Abdullah Eroglu and Hulya Kirkici, "Breakdown Characteristics of Argon in Partial Vacuum under kHz Pulsed Voltage with Varying Duty Cycle for Point Electrode Geometry," Proceedings of the IEEE International Conference on Plasma Science, 2010
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 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 Kirkici ³ & DUERQ & RDWLQJ E\ 'RXEOH 3XC
BeaP * H Q H U P o w e r s of the 29 IEEE International Conference on Plasma Science
pp: 266, May 2002
7. M. Udrea, H. Goktas, H. Kirkici ³, Q W H Q V H (O H F W U R Q % H D P * H Q H U D W L R
' L V F K D R U e e d i n g s of the IEEE International Conference on Plasma Science June 2000.
8. D. K. Hall and H. Kirkici ³ + L J K 9 R O W D J H ' H V L J Q & R Q F H S W V I R U / D X Q F
6 S D F H F U D I W \$ B r o e d i n g s W o r k s h o p of IEEE International High Voltage Workshop
Newport Beach, CA, April 2000.
9. H. Kirkici and M. Adams, ³ 6 X U I D F H % U H D N G R Z Q D Q G 6 X U I D F H) O D V K R
' L D P R Q G D Q G ' / & 7 K L Q) L O P V R Q ' L H O H A n n u a l R e p o r t o f V W U D W H V
Conference on Electrical Insulation and Dielectric Phenom 1996.
10. Kirkici + . U D O R Y H F - ³ e s s e n t i a l N i t r o g e n a n d 9 a r g o n h a l o g e n
excimers in a fast flowing crossed beam plasma P [L Q J G H Y L F H I R U S R O O X W L R
Proceedings of the IEEE International Conference on Plasma Science, p 280, Jun 1995.
11. D. Bruno, H. Kirkici, 17% 1 0 8 K H O B . 4 6 5 6 U N D W B R O 3 R 1 . 0 4 T H J I P H Q 1 5 6 . 1 6 5 0 4 9 1 0 1 R 0 2 & D
Conference Presentation, 43 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 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

- 11.H. Kirkici (PI) (100%), "Evaporation Rate Measurements of Low Vapor Pressure, High Temperature Materials Experimental Studies and Instrumentation", 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 HV Wide Band Semiconductor Materials for Blue-UV Light Emission, 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 DPOZ51492, 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 University Grant-in-Aid Award, 1993-1995.
- 15.Hulya Kirkici (PI) (100%), Special Composite Cathode Materials (Task 4, DNA-KIRKICI/DEFENSE NUCLEAR AGENCY/SPACE POWER INSTITUTE/DNA001 90-C-0127, (Task 2: Subtask: 2), Sept 1994 1995.
- 16.Hulya Kirkici (PI) (100%)

Grants (Related to Teaching, not included in Research Grants listing)

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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 Diodes

Shida Tan Ph.D. in ME, May 2002 (currently with: Intel Corporation, San Jose, CA)

Dissertation Title: Modeling and Simulation of a High-Speed Digital Signal Processor

MS / MEE Students Graduated:

Zhenhong Li MS in ECE, August 2012 (with: Otis Elevators,Connecticut)
Thesis Title Φ Pulse Breakdown Phenomena in Partial Vacuum

Chung-Nan Tsai MS in ECE, December 2012 (currently KLA-TencorCorp)
Thesis Title: Φ Selective and Non-Selective Synthesis of Carbon Nanotubes (CNTs)
by Chemical Vapor Deposition (CVD) Characterization: Catalyst and
8 Q G H U O D \ H U V (I I H F W V R Q) L H O G (P L V V L R Q 3 U R

Ming Zhang MS in ECE December 2012 (currently in China)
Thesis Title Φ Beam Collimation and Intensity Uniformization of Laser Diode
Array 8 V L Q J / H Q V O H W V '

Rujun Bai MS in ECE May 2013 (currently inPhD program Auburn Univ)
Thesis Title Φ Nonlinear Field Enhancement Factor of Carbon Nanotubes (CNTs)
in Vacuum and Partial Pressure

Baka Yakupoglu MS in ECE, December 2012 (currently inPhDprogat Auburn Univ.)
Thesis Title: Φ Synthesis of Carbon ng

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

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)

x	Jianliang Hao	(Advisor: Dr. Wilamowski)	MS	ECE	Dec 2015
x	Byron Caudle	(Advisor: Dr. Baginski)	PhD	ECE	May 2013
x	TianTian Xie	(Advisor: Dr. Wilamowski)	PhD	ECE	Dec 2011
x	Hai Lu	(Advisor: Dr. Baginski)	MS	ECE	Aug 2011
x	Hao Yu	(Advisor: Dr. Wilamowski)	PhD	ECE	May 2010
x	Michael Grady	(Advisor: Dr. Wentworth)	MS	ECE	Aug. 2010
x	Hyun Joong Lee	(Advisor: Dr. Wilamowski)	MS	ECE	May 2010
x	Nam Dinh Pham	(Advisor: Dr. Wilamowski)	MS	ECE	Dec. 2009
x	Anne Mackenzie	(Advisor: Dr. Rao)	PhD	ECE	Dec. 2008
x	Aroldo Couto	(Advisor: Dr. Roppel)	MS	EE	Aug. 2003
x	Brialn A. Winfield	(Advisor: Dr. Roppel)	MS	EE	Aug. 2003 -3e W84. -3e W84. -3

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- x Auburn University ±Senate Committee on Administrator Evaluation, Fall 2015 to 2016
- x Faculty Search Committee Member, ECE Department, Fall 2015
- x Auburn University Senate Committee on Faculty Handbook Revision Member, Aug. 2014 to 2016
- x Auburn University University Strategic Planning Initiatives Committee Member ± priority-: strategic plan on faculty success (representing the university senate) August 2014 to 2016
- x Commission on Women in Academic Careers Member appointed by the Provost, Fall 2014 to 2016
- x Faculty judge of research paper presentation, Auburn University Graduate Research Forum,

- x AdCom Member, IEEE-DEIS Jan. 1998 Jan. 2001 (first term), and Jan. 2004 (second term)
- x Vice Chair and Treasurer of IEEE CEIDP 2004 and 2005
- x Secretary of IEEE CEIDP 2002 and 2003
- x Technical Program Committee Member IEEE EIDP (Jan. 1999-2001)
- x Interim-Vice-Chair and Treasurer of IEEE CEIDP-2001
- x Board Member IEEE CEIDP 1997-2000 (first term), and 2001-2002 (second term)
- x Member, IEEE-Pulsed Power Science and Technology Committee, Jan 2000 to 2007
- x AdCom Member, IEEE-Sensors Council, DEIS Rep to Sensors Council, 2007 to 2010

Conference Activities

As Conference Chair / Co-Chair

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

As Technical Program Committee Chair / Membership / Session Chair

- x Chair, Technical Program Committee, IEEE Power Modulator and High Voltage Conference, to be held in Santa Fe, June 2017

x Co Editor-in-Chief, Trans. of Electrical and Electronic Materials

