Institution: U.S. Naval Academy Date: 1 March 2010
Program: Systems Engineering

1. Name: Edwin L. Zivi

2. Degrees:

BS	Engineering Science & Mechanics	Virginia Tech.	1975
MS	Mechanical Engineering	University of Maryland	1983
PhD	Mechanical Engineering	University of Maryland	1989

3. Number of years of service: 11 years

Initial appointment:	Assistant Professor	1998
Promotion:	Associate Professor	2004

4. Other related experience:

1970-98 Senior Research Engineer and Technical Advisor, Carderock Division, Naval Surface Warfare Center, Annapolis Maryland

5. States in which registered: none

6. Scientific and professional societies of which a member:
IEEE, ASEE

7. Honors and awards:
Letter of Commendation from RADM Cohen, Chief of Naval Research

8. Institutional and professional service in the last five years:
Division of Engineering and Weapons Trident Committee (2003 - present).
Plebe high validator advisor to approximately 25-31 plebes (1999 - present).
Facility-Midshipmen Relations Committee (2008 - present)
Civilian Teaching Award Committee (2008 - present)
APGAR Teaching Award Committee (2008 - present)
Student Research Advisor: 3 Trident Scholars, 7 Bowman Scholars, 8 Independent Research Projects
Reviewer for conferences including ACC, CDC, IEEE, ASEE
Course Coordinator for ES202 Introduction to Systems Engineering (Spring 2006, 2007)
Course Coordinator for ES303 Linear Control Systems (Fall 2007, 2008)
Course Coordinator for ES303H Honors Linear Control Systems (Fall 2009)
Course Coordinator for ES430 Introduction to Computer Engineering (Fall 2008, 2009)
Course Coordinator for ES432 Microcomputers in Control Applications (Spring 2008, 2009, 2010)

9. Principal publications of last five years:

- Momoh, J.A., Zivi, E.L., "Control, Optimization, Security, and Self-healing of Benchmark Power Systems," Handbook of Learning and Approximate Dynamic Programming, edited by J. Si, A.G. Barto, W.B. Powell and D. Wunsch, IEEE Press / Wiley-Interscience, ISBN 0-471-66054-X, 2004.

- Cramer, A.M., Sudhoff, S.D., Zivi, E.L., "Performance Metrics for Electric Warship Integrated Engineering Plant Battle Damage Response," accepted for publication by IEEE Transactions on Aerospace and Electronic Systems, September 26, 2009.
- Cramer, A.M., Sudhoff, S.D., Zivi, E.L., "Evolutionary Algorithms for Minimax Problems in Robust Design," IEEE Transactions on Evolutionary Computation, Volume 13, Issue 2, April 2009 Page(s): 444 – 453, Digital Object Identifier 10.1109/TEVC.2008.2004422

- Yonggon Lee, Hui, S., Zivi, E., Żak, S.H., "Variable neural adaptive robust controllers for uncertain systems," International Journal of Adaptive Control and Signal Processing, Oct. 2008, vol.22, no.8, pp. 721-38.
- Chan, R.R., Yonggon Lee, Sudhoff, S.D., Zivi, E.L., "Evolutionary Optimization of Power Electronics Based Power Systems," IEEE Transactions on Power Electronics, Volume 23, Issue 4, July 2008 Page(s): 1907 – 1917, Digital Object Identifier 10.1109/TPEL.2008.925197
- Zivi, E.L., "Design of robust shipboard power automation systems," International Federation of Automatic Controls (IFAC) Annual Reviews in Control, 2005, vol.29, no.2, pp. 261-72.
- Chan, R.R., Sudhoff, S.D., Yonggon Lee, Zivi, E.L., "A linear programming approach to shipboard electrical system modeling," Proceedings of the Electric Ship Technologies Symposium, ESTS 2009, IEEE, 20-22 April 2009 Page(s): 261 – 269, Digital Object Identifier 10.1109/ESTS.2009.4906524.
- Schulz, N.N., Hebner, R.E., Dale, S., Dougal, R., Sudhoff, S., Zivi, E., Chryssostomidis, C., "The U.S. ESRDC advances power system research for shipboard systems," Proceedings of the 43rd International Universities Power Engineering Conference, UPEC 2008, 1-4 Sept. 2008 Page(s): 1 – 4, Digital Object Identifier 10.1109/UPEC.2008.4651686.
- Cramer, A.M., Sudhoff, S.D., Zivi, E.L., "Performance Metrics for Electric Warship Integrated Engineering Plant Battle Damage Response," Proceedings of the 2007 Electric Ship Technologies Symposium, ESTS '07, IEEE, 21-23 May 2007 Page(s): 22 – 29, Digital Object Identifier 10.1109/ESTS.2007.372059.
- Sullivan, C.J., Sudhoff, S.D., Zivi, E.L., Zak, S.H., "Methods of Optimal Lyapunov Function Generation with Application to Power Electronic Converters and Systems," Proceedings of the 2007 Electric Ship Technologies Symposium, ESTS '07, IEEE, 21-23 May 2007 Page(s): 267 – 274, Digital Object Identifier 10.1109/ESTS.2007.372097.
- Chan, R. R.; Sudhoff, S. D., Lee, Y.; Zivi, E. L., "Evolutionary Optimization of Power Electronics Based Power Systems," Proceedings of the Twenty Second Annual IEEE Applied Power Electronics Conference, APEC 2007, Feb. 25 2007-March 1 2007 Page(s): 449 – 456.
- Cramer, A.M, Chan, R.R., Sudhoff, S.D., Lee, Y., Surprenant, M., Tyler, N., Zivi, E.L., and Youngs, R., "Modeling and Simulation of an Electric Warship Integrated Engineering Plant," Paper 2006-01-3050, Proceedings of the 2006 SAE Power Systems Conference, November 7-9, 2006, New Orleans, Louisiana.
- Cassimere, B., Valdez, C.R., Sudhoff, S., Pekarek, S., Kuhn, B., Delisle, D., Zivi, E., "System impact of pulsed power loads on a laboratory scale integrated fight through power (IFTP) system," Proceedings of the 2005 Electric Ship Technologies Symposium, 2005, 25-27 July 2005 Page(s): 176 – 183, Digital Object Identifier 10.1109/ESTS.2005.1524672.
- Loop, B.P., Sudhoff, S.D., Zak, S.H., Zivi, E.L., "An optimization approach to estimating stability regions using genetic algorithms," Proceedings of the 2005 American Control Conference, 8-10 June 2005 Page(s): 231 - 236 vol. 1, Digital Object Identifier 10.1109/ACC.2005.1469937.
- Zivi, E. L., "Design of Robust Shipboard Power Automation Systems," (Invited Plenary Lecture), Proceedings of the International Federation of Automatic Control (IFAC) Control Applications in Marine Systems Conference (CAMS 2004), July 7 – 9, 2004, Ancona, Italy.
- Wang, H., Pekarek, S., Fahimi, B., Zivi, E., Ciezki, J., "Improvement of fault tolerance in AC motor drives using a digital delta-hysteresis modulation scheme," Proceedings of the IEEE 35th Annual Power Electronics Specialists Conference, PESC 04, Volume 2, 20-25 June 2004 Page(s): 944 – 949.

10. Professional development activities in the last five years:
    Teaching Workshop, Electric Ship R&D Consortium Workshop