

JOSE R. CELAYA-GALVAN

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EDUCATION

Doctor of Philosophy, Decision Sciences and Engineering Systems, August 2008.
Rensselaer Polytechnic Institute, Troy, NY.
Concentration in Modeling and Analysis of Multi-agent Systems, Statistics, Operations Research and Computational Intelligence.

Master of Engineering, Operation Research and Statistics, August 2008.
Rensselaer Polytechnic Institute, Troy, NY.
Concentration in Computational Statistics and Optimization.

Master of Science, Electrical Engineering, December 2003.
Rensselaer Polytechnic Institute, Troy, NY.
Concentration in Control Systems, Intelligent Systems, Optimization, Petri nets and Modeling of Discrete-Event Systems.

Bachelor of Science, Electronics Cybernetics Engineering, June 1999.
Centro de Enseñanza Técnica y Superior (CETYS), Mexicali, B. C. México.
Concentration in Computer and Electronic Systems and Process Control.

International Study Program, August 1998.
Arizona State University, Tempe, AZ.

EXPERIENCE

PROGNOSTICS CENTER OF EXCELLENCE
DIAGNOSTICS AND PROGNOSTICS GROUP (SGT INC. CONTRACTOR)
INTELLIGENT SYSTEMS DIVISION
NASA AMES RESEARCH CENTER, MOFFETT FIELD CA
January 2009 - Current
(Research Scientist)

RESEARCH INSTITUTE FOR ADVANCED COMPUTER SCIENCE
DIAGNOSTICS AND PROGNOSTICS GROUP
INTELLIGENT SYSTEMS DIVISION
NASA AMES RESEARCH CENTER, MOFFETT FIELD CA
October 2007 - January 2009
(Visiting Postdoctoral Scientist)

INDUSTRIAL ARTIFICIAL INTELLIGENCE LABORATORY
COMPUTING AND DECISION SCIENCES
GENERAL ELECTRIC GLOBAL RESEARCH CENTER, NISKAYUNA NY
May 2006 - August 2006
(Research Consultant)

SERVICE ALGORITHMS LABORATORY
INFORMATION AND DECISION TECHNOLOGIES
GENERAL ELECTRIC GLOBAL RESEARCH CENTER, NISKAYUNA NY
January 2005 - August 2005
(Research Consultant)

SERVICE ALGORITHMS LABORATORY
INFORMATION AND DECISION TECHNOLOGIES
GENERAL ELECTRIC GLOBAL RESEARCH CENTER, NISKAYUNA NY

May 2004 - August 2004
(R&D Intern)

CENTER FOR MANUFACTURING INTEGRATION
CETYS UNIVERSITY, MEXICALI, B. C. MÉXICO

July 1999 - August 2001
(Project Engineer)

ACADEMIC EXPERIENCE

DECISION SCIENCE AND ENGINEERING SYSTEMS DEPARTMENT
RENSSELAER POLYTECHNIC INSTITUTE, TROY, NY

August 2005 - current
(Teaching Assistant)

ELECTRONICS AGILE MANUFACTURING RESEARCH INSTITUTE
DECISION SCIENCE AND ENGINEERING SYSTEMS DEPARTMENT
RENSSELAER POLYTECHNIC INSTITUTE, TROY, NY

August 2003 - December 2004
(Research Assistant)

DEPARTMENT OF ENGINEERING
CETYS UNIVERSITY, MEXICALI, B. C. MÉXICO

August 1999 - June 2001
(Lecturer)

Lectured one basic undergraduate course per academic term with full responsibility.

HONORS AND AWARDS

- Ames Safety Awards Program II (ASAP II) Outstanding Service Recipient. National Aeronautics and Space Administration, August 2012. For outstanding actions and accomplishments in improving health and safety conditions at Ames Research Center.
- Intelligent Systems Research and Development Services (ISRDS) Certificate of Achievement. NASA Ames Research Center Intelligent Systems Division and Stinger Ghaffarian Technologies. May 2012.
- Best Theory Paper Award, Annual Conference of the Prognostics and Health Management Society, 2012. José R. Celaya, Abhinav Saxena and Kai Goebel. "Uncertainty Representation and Interpretation in Model-based Prognostics Algorithms based on Kalman Filter Estimation."
- Best Application Paper Award, Annual Conference of the Prognostics and Health Management Society, 2012. Chetan Kulkarni, José R. Celaya, Kai Goebel and Gautam Biswas. "Bayesian Framework Approach for Prognostics Studies in Electrolytic Capacitor under Thermal Overstress Conditions."
- Best Paper Second Place on the Intelligent System Student category. AIAA Infotech@Aerospace Conference, June 2012. Chetan Kulkarni, José R. Celaya, Gautam Biswas and Kai Goebel.
- Best Application Paper Award, Annual Conference of the Prognostics and Health Management Society, 2011. Jose R. Celaya, Chetan Kulkarni, Gautam Biswas, Sankalita Saha, and Kai Goebel. "A Model-Based Prognostics Methodology for Electrolytic Capacitors Based on Electrical Overstress Accelerated Aging."
- Best Application Paper Nominee, Annual Conference of the Prognostics and Health Management Society, 2011. E. Balaban, S. Narasimhan, M. Daigle, J. R. Celaya, I. Roychoudhury, B. Saha, S. Saha, and K. Goebel. "A Mobile Robot Testbed for Prognostics-Enabled Autonomous Decision Making."
- Best Student Paper Award contribution, IEEE AUTOTESTCON Conference for paper titled, "Integrated diagnostic/prognostic experimental setup for capacitor degradation and health monitoring", Kulkarni, C., Biswas, G., Koutsoukos, X., Celaya, J. and Goebel, K., 2010.
- Star Award, SGT Inc. for Exceptional Contributions Toward the Development of Electronics Prognostics within the Discovery and Systems Health Group at NASA Ames Research Center, 2009.
- Best GOLD paper award, International Conference of Prognostics and Health Management 2008. A. Saxena, J. Celaya, E. Balaban, K. Goebel, B. Saha, S. Saha, and M. Schwabacher, Metrics for Evaluating Performance of Prognostics Techniques," First International Conference on Prognostics and Health Management, Denver CO, Oct 2008.
- Master Teaching Fellow, 2007-2008 Teaching Assistant Orientation Program. Office of Graduate Education, Rensselaer Polytechnic Institute.
- 2007 DSES Teaching Assistant Award, Decision Science and Engineering Systems Department, Rensselaer Polytechnic Institute.

- Full Scholarship, National Council of Science and Technology (CONACYT) México. For Master of Science studies at Rensselaer Polytechnic Institute from August 2001 to May 2003.
- Partial Scholarship, Higher Education and Research Department at CETYS University. For undergraduate studies at CETYS University from August 1996 to June 1999.
- International Study Program at Arizona State University. Sponsored by the Higher Education and Research Department at CETYS University, fall 1998.

SERVICE

- IEEE PHM Standard Working Group Member. The IEEE Reliability Society, May 2012-current.
- Society of Hispanic Professional Engineers (SHPE) Scholarship Reviewer. Reviewed and rated scholarship applications for high school students entering college for Fall 2012 term.
- Science Fair Judge: Special Judge for NASA Awards, 2012 Synopsis Silicon Valley Science and Technology Championship, Santa Clara Valley Science and Engineering Fair Association (SCVSEFA), San Jose, CA, March 2012.
- Board of Directors Member: Ames Child Care Center, Moffett Field CA, July 2011-current.
- Editorial Board Member: International Journal of the Prognostics and Health Management Society, September 2011-current.
- Doctoral Committee Member: Vanderbilt University, Department of Electrical Engineering and Computer Science, Student: Mr. Chetan Kulkarni, April 2011-current.
- Technical Program Committee Lead: Annual Conference of the Prognostics and Health Management Society, 2012.
- Science and Engineering Judge: Society for Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference, San Jose, CA, October 2011.
- Proceedings Chair: Annual Conference of the Prognostics and Health Management Society, September 2011.
- Conference Session Chair: Electronics Prognostics and Health Management Session I. Annual Conference of the Prognostics and Health Management Society, September 2011.
- Proceedings Chair: Annual Conference of the Prognostics and Health Management Society, 2010.
- Conference Session Chair: Anomaly Detection Session II. Annual Conference of the Prognostics and Health Management Society, 2010.
- Publicity Chair: Annual Conference of the Prognostics and Health Management Society, 2009.

PATENTS

- US Patent No.: 8,005,733, “Methods and Interface for Set-Partitioning Decision Support Tool”, August 23, 2011. Co-inventors: R. Subbu, K. Chalermkraivuth, J. Celaya, G. Russo, J. Ellis, H. Doan, M. Ialeggio, and M. Allen. Assignee: General Electric Capital Corporation.
- NASA Application Serial. No., 12/454,024, “Decomposition Technique for Remaining Useful Life Prediction”, Filed May 2009. Co-inventors: B. Saha, K. Goebel, A. Saxena and J. Celaya.
- US Patent Pending USPTO Publication No.: 20080163085, “Multi-criteria Decision Support Tool Interface, Methods and Apparatus”, December 2006. Co-inventors: R. Subbu, K. Chalermkraivuth, J. Celaya, G. Russo, J. Ellis, H. Doan, M. Ialeggio, and M. Allen. Assignee: General Electric Company.

PUBLICATIONS

Book Chapters:

- [1] K. Goebel, A. Saxena, S. Saha, B. Saha, and J. Celaya, “Prognostics performance metrics,” in *Machine Learning and Knowledge Discovery for Engineering Systems Health Management* (A. N. Srivastava and J. Han, eds.), Chapman and Hall/CRC, Taylor & Francis Group, 2011.
- [2] J. R. Celaya and A. A. Desrochers, “Modeling and analysis methods for multi-agent systems,” in *Multi-agent Systems* (S. Ahmed and M. N. Karsiti, eds.), InTech, 2009.

Journals:

- [1] J. R. Celaya, C. S. Kulkarni, G. Biswas, and K. Goebel, "Towards a model-based prognostics methodology for electrolytic capacitors: A case study based on electrical overstress accelerated aging," *International Journal of Prognostics and Health Management (Accepted)*, 2012.
- [2] X. Guan, Y. Liu, R. Jha, A. Saxena, J. Celaya, and K. Goebel, "Comparison of two probabilistic fatigue damage assessment approaches using prognostic performance metrics," *International Journal of Prognostics and Health Management*, vol. 2-1, no. 6, 2011.
- [3] A. Saxena, J. Celaya, B. Saha, S. Saha, and K. Goebel, "Metrics for offline evaluation of prognostic performance," *International Journal of Prognostics and Health Management*, vol. 1-1, no. 1, 2010.
- [4] N. Patil, J. Celaya, D. Das, K. Goebel, and M. Pecht, "Precursor parameter identification for insulated gate bipolar transistor (IGBT) prognostics," *IEEE Transactions on Reliability*, vol. 58, no. 2, pp. 271–276, 2009.
- [5] J. Celaya, A. Desrochers, and R. Graves, "Modeling and analysis of multi-agent systems using Petri nets," *Journal of Computers*, vol. 4, no. 10, pp. 981–996, 2009.
- [6] K. Goebel, B. Saha, A. Saxena, J. Celaya, and J. Christophersen, "Prognostics in battery health management," *IEEE Instrumentation & Measurement Magazine*, vol. 11, no. 4, pp. 33–40, 2008.

Thesis:

- [1] J. R. Celaya Galvan, *Modeling and analysis methods for multi-agent systems using Petri nets*. Ph.D., Rensselaer Polytechnic Institute, 2008.
- [2] J. R. Celaya Galván, "Modeling and performance evaluation of an e-engineering system," Master's thesis, Rensselaer Polytechnic Institute. Dept. of Electrical, Computer, and Systems Engineering, December 2003.

Conferences:

- [1] C. S. Kulkarni, J. R. Celaya, K. Goebel, and G. Biswas, "Bayesian framework approach for prognostic studies in electrolytic capacitor under thermal overstress conditions," in *Annual Conference of the Prognostics and Health Management Society*, (Minneapolis, MN), September 2012.
- [2] C. S. Kulkarni, J. R. Celaya, G. Biswas, and K. Goebel, "Prognostics of power electronics, methods and validation experiments," in *IEEE AUTOTESTCON, 2012*, (Anaheim, CA), September 2012.
- [3] C. S. Kulkarni, J. R. Celaya, G. Biswas, and K. Goebel, "Accelerated aging experiments for capacitor health monitoring and prognostics," in *IEEE AUTOTESTCON, 2012*, (Anaheim, CA), September 2012.
- [4] J. R. Celaya, A. Saxena, and K. Goebel, "Uncertainty representation and interpretation in model-based prognostics algorithms based on kalman filter estimation," in *Annual Conference of the Prognostics and Health Management Society*, (Minneapolis, MN), September 2012.
- [5] A. Saxena, J. R. Celaya, I. Roychoudhury, S. Saha, B. Saha, and K. Goebel, "Designing data-driven battery prognostic approaches for variable loading profiles: Some lessons learned," in *First European Conference of the PHM Society 2012 (PHM-E'12)*, (Dresden Germany), July 2012.
- [6] C. S. Kulkarni, J. R. Celaya, K. Goebel, and G. Biswas, "Physics based electrolytic capacitor degradation models for prognostic studies under thermal overstress," in *First European Conference of the PHM Society 2012 (PHM-E'12)*, (Dresden Germany), July 2012.
- [7] A. Saxena, I. Roychoudhury, J. Celaya, B. Saha, S. Saha, and K. Goebel, "Requirements flowdown for prognostics and health management," in *Infotech@Aerospace 2012*, no. AIAA-2012-2554, (Garden Grove, California), June 19-21 2012.

- [8] C. Kulkarni, J. Celaya, G. Biswas, and K. Goebel, "Prognostics health management and physics based failure models for electrolytic capacitors," in *Infotech@Aerospace 2012*, no. AIAA-2012-2602, (Garden Grove, California), June 19-21 2012.
- [9] S. Frost, K. Goebel, and J. Celaya, "A briefing on metrics and risks for autonomous decision-making in aerospace applications," in *Infotech@Aerospace 2012*, no. AIAA-2012-2402, (Garden Grove, California), June 19-21 2012.
- [10] J. Celaya, A. Saxena, and K. Goebel, "A discussion on uncertainty representation and interpretation in model-based prognostics algorithms based on kalman filter estimation applied to prognostics of electronics components," in *Infotech@Aerospace 2012*, no. AIAA-2012-2422, (Garden Grove, California), June 19-21 2012.
- [11] A. E. Ginart, I. N. Ali, J. W. Goldin, P. W. Kalgren, M. J. Roemer, E. Balaban, and J. R. Celaya, "Signal and Characterization of EMI During Intermittent Connector Anomalies," in *IEEE Aerospace Conference*, (Big Sky, MT), April 2012.
- [12] J. Celaya, C. Kulkarni, S. Saha, G. Biswas, and K. Goebel, "Accelerated Aging in Electrolytic Capacitors for Prognostics," in *The Annual Reliability and Maintainability Symposium (RAMS)*, (Reno, NV.), January 2012.
- [13] J. Celaya, A. Saxena, C. Kulkarni, S. Saha, and K. Goebel, "Prognostics Approach for Power MOSFET under Thermal-Stress Aging," in *The Annual Reliability and Maintainability Symposium (RAMS)*, (Reno, NV.), January 2012.
- [14] C. Kulkarni, G. Biswas, J. Celaya, and K. Goebel, "A case study for capacitor prognostics under accelerated degradation," in *IEEE Workshop on Accelerated Stress Testing & Reliability (ASTR)*, September 2011.
- [15] C. Kulkarni, G. Biswas, J. Celaya, and K. Goebel, "Prognostic Modeling and Experimental Techniques for Electrolytic Capacitor Health Monitoring," in *8th International Workshop on Structural Health Monitoring (IWSHM)*, (Stanford University), September 2011.
- [16] J. R. Celaya, C. Kulkarni, G. Biswas, S. Saha, and K. Goebel, "A Model-based Prognostics Methodology for Electrolytic Capacitors Based on Electrical Overstress Accelerated Aging," in *Annual Conference of the Prognostics and Health Management Society*, (Montreal QC, Canada), September 2011.
- [17] J. R. Celaya, A. Saxena, S. Saha, and K. Goebel, "Prognostics of Power MOSFETs under Thermal Stress Accelerated Aging using Data-Driven and Model-Based Methodologies," in *Annual Conference of the Prognostics and Health Management Society*, (Montreal QC, Canada), September 2011.
- [18] E. Balaban, S. Narasimhan, M. Daigle, J. R. Celaya, I. Roychoudhury, B. Saha, S. Saha, and K. Goebel, "A Mobile Robot Testbed for Prognostics-Enabled Autonomous Decision Making," in *Annual Conference of the Prognostics and Health Management Society*, (Montreal QC, Canada), September 2011.
- [19] S. Saha, J. Celaya, V. Vashchenko, S. Mahiuddin, and K. Goebel, "Accelerated aging with electrical overstress and prognostics for power MOSFETs," in *Energytech, 2011 IEEE*, pp. 1–6, may 2011.
- [20] J. R. Celaya, S. Saha, and K. Goebel, "Electronics Health Management," in *NASA Aviation Safety Annual Technical Meeting*, (St. Louis, MO), May 2011.
- [21] J. R. Celaya, C. Kulkarni, G. Biswas, and K. Goebel, "Towards prognostics of electrolytic capacitors," in *AIAA Infotech@Aerospace 2011*, no. AIAA-2011-1519, (St. Louis, MO), Mar. 29-31 2011.
- [22] C. Kulkarni, G. Biswas, J. Celaya, and K. Goebel, "Prognostic techniques for capacitor degradation and health monitoring," in *The Maintenance and Reliability Conference (MARCON)*, (Knoxville, TN), February 2011.
- [23] J. R. Celaya, A. Saxena, V. Vashchenko, S. Saha, and K. Goebel, "Prognostics of power MOSFET," in *23rd International Symposium on Power Semiconductor Devices and ICs*, (San Diego, CA), 2011.
- [24] S. P. Bharadwaj, A. E. Ginart, I. N. Ali, P. W. Kalgren, J. Celaya, and S. Poll, "Solar cells aging estimation based on impedance characterization," in *IEEE Aerospace Conference 2011*, (Big Sky, MT), 2011.

- [25] A. Saxena, I. Roychoudhury, J. Celaya, S. Saha, B. Saha, and K. Goebel, "Requirements specification for prognostics performance – an overview," in *AIAA Infotech@Aerospace 2010*, no. AIAA-2010-3398, (Atlanta, Georgia), Apr. 20-22 2010.
- [26] C. Kulkarni, G. Biswas, X. Koutsoukos, K. Goebel, and J. Celaya, "Physics of Failure Models for Capacitor Degradation in DC-DC Converters," in *The Maintenance and Reliability Conference (MARCON)*, (Knoxville, TN), February 2010.
- [27] A. Saxena, J. Celaya, B. Saha, S. Saha, and K. Goebel, "Evaluating prognostics performance for algorithms incorporating uncertainty estimates," in *IEEE Aerospace Conference, 2010*, (Big Sky, MT), pp. 1–11, 2010.
- [28] S. Saha, J. Celaya, B. Saha, P. Wysocki, and K. Goebel, "Towards modeling the effects of lightning injection on power MOSFETs," in *Annual Conference of the Prognostics and Health Management Society 2010*, (Portland, OR), 2010.
- [29] C. Kulkarni, G. Biswas, X. Koutsoukos, J. Celaya, and K. Goebel, "Integrated diagnostic/prognostic experimental setup for capacitor degradation and health monitoring," in *IEEE AUTOTESTCON, 2010*, (Orlando, FL), 2010.
- [30] C. Kulkarni, G. Biswas, X. Koutsoukos, J. Celaya, and K. Goebel, "Aging methodologies and prognostic health management for electrolytic capacitors," in *Annual Conference of the Prognostics and Health Management Society 2010*, (Portland, OR), 2010.
- [31] C. Kulkarni, G. Biswas, X. Koutsoukos, J. Celaya, and K. Goebel, "Diagnostic/prognostic experiments for capacitor degradation and health monitoring in DC-DC converters," in *ASME 2010 Conference on Smart Materials, Adaptive Structures and Intelligent Systems (SMASIS 2010)*, (Philadelphia, PA), p. 3862, 2010.
- [32] A. E. Ginart, I. N. Ali, J. R. Celaya, P. W. Kalgren, D. P. S, and M. J. Roemer, "Modeling SiO₂ ion impurities aging in insulated gate power devices under temperature and voltage stress," in *Annual Conference of the Prognostics and Health Management Society 2010*, (Portland, OR), 2010.
- [33] J. R. Celaya, P. Wysocki, V. Vashchenko, S. Saha, and K. Goebel, "Accelerated aging system for prognostics of power semiconductor devices," in *IEEE AUTOTESTCON, 2010*, (Orlando, FL), pp. 1–6, 2010.
- [34] J. Celaya, A. Saxena, P. Wysocki, S. Saha, and K. Goebel, "Towards prognostics of power MOSFETs: Accelerated aging and precursors of failure," in *Annual Conference of the Prognostics and Health Management Society 2010*, (Portland, OR), 2010.
- [35] P. Wysocki, V. Vashchenko, J. Celaya, S. Saha, and K. Goebel, "Effect of electrostatic discharge on electrical characteristics of discrete electronic components," in *Annual Conference of the Prognostics and Health Management Society, 2009*, (San Diego, CA), 2009.
- [36] A. Saxena, J. Celaya, B. Saha, S. Saha, and K. Goebel, "On applying the prognostics performance metrics," in *Annual Conference of the Prognostics and Health Management Society, 2009*, (San Diego, CA), 2009.
- [37] A. Saxena, J. Celaya, B. Saha, S. Saha, and K. Goebel, "Evaluating algorithm performance metrics tailored for prognostics," in *Aerospace conference, 2009 IEEE*, (Big Sky, MT), pp. 1–13, 2009.
- [38] B. Saha, J. R. Celaya, P. F. Wysocki, and K. F. Goebel, "Towards prognostics for electronics components," in *IEEE Aerospace conference 2009*, (Big Sky, MT), pp. 1–7, 2009.
- [39] X. Guan, Y. Liu, A. Saxena, J. Celaya, and K. Goebel, "Entropy-based probabilistic fatigue damage prognosis and algorithmic performance comparison," in *Annual Conference of the Prognostics and Health Management Society, 2009*, (San Diego, CA), 2009.
- [40] J. R. Celaya, S. Saha, P. Wycoki, and K. F. Goebel, "Effects of lightning injection on power-MOSFETs," in *Annual Conference of the Prognostics and Health Management Society, 2009*, (San Diego, CA), 2009.

- [41] J. R. Celaya, N. Patil, S. Saha, P. Wycoki, and K. Goebel, “Towards accelerated aging methodologies and health management of power MOSFETs,” in *Annual Conference of the Prognostics and Health Management Society, 2009*, (San Diego, CA), 2009.
- [42] G. Sonnenfeld, K. Goebel, and J. R. Celaya, “An agile accelerated aging, characterization and scenario simulation system for gate controlled power transistors,” in *IEEE AUTOTESTCON 2008*, pp. 208–215, 2008.
- [43] A. Saxena, J. Celaya, E. Balaban, K. Goebel, B. Saha, S. Saha, and M. Schwabacher, “Metrics for evaluating performance of prognostic techniques,” in *International Conference on Prognostics and Health Management, 2008. PHM 2008.*, (Denver, CO), pp. 1–17, 2008.
- [44] K. Goebel, B. Saha, A. Saxena, and J. Celaya, “A comparison of data-driven algorithms for prognostics,” in *Conference on Intelligent Data Understanding (CIDU)*, (Washington DC), 2008.
- [45] R. Subbu, G. Russo, K. Chalermkraivuth, and J. Celaya, “Multi-criteria set partitioning for portfolio management: A visual interactive method,” in *IEEE Symposium on Computational Intelligence in Multicriteria Decision Making*, (Honolulu, HI), pp. 166–171, 2007.
- [46] J. R. Celaya, A. A. Desrochers, and R. J. Graves, “Modeling and analysis of multi-agent systems using petri nets,” in *IEEE International Conference on Systems, Man and Cybernetics, 2007. ISIC.*, (Montreal, Que.), pp. 1439–1444, 2007.
- [47] K. F. Goebel, W. Yan, N. H. W. Eklund, X. Hu, V. Avasarala, and J. Celaya, “Defect classification of highly noisy NDE data using classifier ensembles,” in *Smart Structures and Materials 2006: Smart Sensor Monitoring Systems and Applications*, vol. 6167, (San Diego, CA), pp. 61671O–12, SPIE, 2006.
- [48] V. Avasarala, J. R. Celaya, K. Goebel, and N. Eklund, “Sensor validation in non-destructive evaluation using clustering,” in *Smart Structures and Materials 2006: Smart Sensor Monitoring Systems and Applications*, vol. 6167, (San Diego, CA), SPIE, 2006.

Technical Reports:

- [1] J. J. Ely, T. X. Nguyen, G. N. Szatkowski, S. V. Koppen, J. J. Mielnik, R. K. Vaughan, P. F. Wysocki, J. R. Celaya, and S. Saha, “Lightning pin injection test: MOSFETS in “ON” state,” Tech. Rep. NASA/TM-2011-217047, NASA Technical Memorandum, 2011.
- [2] J. J. Ely, T. X. Nguyen, G. N. Szatkowski, S. V. Koppen, J. J. Mielnik, R. K. Vaughan, P. F. Wysocki, J. R. Celaya, and S. Saha, “Lightning pin injection testing on MOSFETS,” Tech. Rep. NASA/TM-2009-215794, NASA Technical Memorandum, 2009.
- [3] K. Goebel, J. Celaya, and V. Avasarala, “ESCD automated classification - 2005 activities,” GE Internal (Class 2) 2006GRC412, General Electric Global Research Center, June 2006.
- [4] K. Goebel, D. Chan, S. Dewangan, T. Johnson, K. Kutty, J. Celaya, T. Markham, M. Prakash, M. Dinesh, M. Osborn, T. Sebastian, D. Fogelman, K. Lilienfeld, and M. Zahn, “Automated data analysis for USWM defect detection, EMAT defect discrimination, MFL sizing, and USCD defect classification,” GE Internal (Class 2) 2006GRC411, General Electric Global Research Center, June 2006.
- [5] P. Ayyalasomayajula, J. Celaya, Z. Li, A. Petrie, K. Satyam, and T. Willemain, “New approaches to confirming bimodality in histograms,” Tech. Rep. Decision Science and Engineering Systems Department 38-06-524, Rensselaer Polytechnic Institute, April 2006.