
OluFemi A. Omitaomu, Ph.D.

Contact Information

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ResearchGate Page: https://www.researchgate.net/profile/Olufemi_Omitaomu

Current Positions

- **Theme Lead**, Urban Resiliency, Urban Dynamics Institute, Oak Ridge National Laboratory, Tennessee.
- **Team Lead**, Critical Infrastructure Modeling and Climate Impacts, Geographic Information Science and Technology Group, Computational Sciences and Engineering Division, Oak Ridge National Laboratory, Tennessee.
- **Senior Research Scientist**, Computational Sciences and Engineering Division, Oak Ridge National Laboratory, Tennessee.
- **Joint ORNL-UT Associate Professor**, Department of Industrial and Systems Engineering, University of Tennessee, Knoxville, Tennessee.

Education

Ph.D., Information Engineering, University of Tennessee, May 2006.
M.S., Mechanical Engineering, University of Lagos, Nigeria, Dec. 1999.
B.S., Mechanical Engineering, Lagos State University, Nigeria, May 1995.

Professional Experience

- January 2012 to Present, **Senior Research Scientist**, Computational Sciences and Engineering Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- October 2014 to Present, **Joint ORNL-UT Associate Professor**, Department of Industrial and Systems Engineering, University of Tennessee, Knoxville.
- October 2014 to Present, **Adjunct Associate Professor**, Department of Civil and Environmental Engineering, University of Tennessee, Knoxville.
- November 2009 to September 2014, **Adjunct Faculty**, Department of Industrial and Systems Engineering, University of Tennessee, Knoxville.
- July 2009 to December 2011, **Research Scientist**, Computational Sciences and Engineering Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Oct. 2006 to July 2009, **Post-Doctoral Researcher**, Oak Ridge Associated Universities – Affiliated with the Computational Sciences and Engineering Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Feb. 2006 – Sept. 2006, **Post-Doctoral Research Fellow**, Advanced Optimization Laboratory, Data Mining Group, McMaster University, Hamilton ON, Canada.
- Jan. 2001 – May 2006, **Research Associate (as a part of the Ph.D. Degree)**, Department of Industrial and Information Engineering, University of Tennessee.
- June 1995 – Dec. 2000, **Project Engineer**, Mobil Producing Nigeria.

University Teaching Experience

- Jan. 2007 – May 2007, *Guest Speaker*, Advanced Data Mining for Engineering (Graduate Elective Course), Department of Industrial and Information Engineering, University of Tennessee.
- Aug. 2005 – Dec. 2005, *Guest Instructor*, Advanced Data Mining for Engineering and Manufacturing (Graduate Elective Course), Department of Industrial and Information Engineering, University of Tennessee.
- Aug. 2003 – July 2005, *Instructor*, Engineering Economic Analysis (Required Undergraduate Course), Department of Industrial and Information Engineering, University of Tennessee.
- Aug. 2002 – July 2003, *Laboratory Instructor/Teaching Assistant*, Engineering Statics and Dynamics, College of Engineering ENGAGE Program, University of Tennessee.
- Jan. 2001 – July 2002, *Teaching Associate*, Advanced Engineering Economic Analysis, Department of Industrial and Information Engineering, University of Tennessee.

Awards and Honors

- **October 2015:** Significant Event Award – Development of a New Virtualization of the Evolving Power Grid, Oak Ridge National Laboratory.
- **November 2012:** Distinguish Employee’s Award – Computational Sciences and Engineering Division, Oak Ridge National Laboratory.
- **August 2010:** Exceptional Mentoring Award – Research Alliance in Math and Science – 2010 Summer Internship, U.S. Department of Energy Office of Science.
- **November 2009:** Engineering R&D Team Award, Oak Ridge National Laboratory.
- **August 2008:** Significant Event Award – Successful design and implementation of Visualizing Energy Resources Dynamically on Earth (VERDE), Oak Ridge National Laboratory.
- **May 2004:** The Outstanding Ph.D. Student Award, Department of Industrial and Information Engineering, University of Tennessee.
- **December 1995:** Five Awards as the Best Graduating Student, at the Department (of Mechanical Engineering) level, at the Faculty (of Engineering) level, and at the University level (Lagos State University).

Publications

Books

1. **Olufemi A. Omitaomu** (2013). *Intelligent Process Monitoring and Control Using Sensor Data*. Germany: Lap Lambert Academic Publishing, March.
2. Adedeji B. Badiru and **Olufemi A. Omitaomu** (2011). *Handbook of Industrial Engineering Equations, Formulas, and Calculations*. New York, NY: CRC Press, January.
3. Mohamed M. Gaber, Ranga Raju Vatsavai, **Olufemi A. Omitaomu**, Nitesh V. Chawla, and Auroop R. Ganguly (2010). *Knowledge Discovery from Sensor Data*. 1st Edition. Lecture Notes in Computer Science, Springer, May.
4. Auroop R. Ganguly, Joao Gama, **Olufemi A. Omitaomu**, Mohamed M. Gaber, and Ranga Raju Vatsavai (2009). *Knowledge Discovery from Sensor Data*. New York, NY: CRC Press, January.
5. Adedeji B. Badiru and **Olufemi A. Omitaomu**. (2007). *Computational Economic Analysis for Engineering and Industry*. New York, NY: CRC Press, June.

Book Chapters

6. **Olufemi A. Omitaomu** (2015). Energy Measurement. In Adedeji B. Badiru and LeeAnn Racz (Eds.) *Handbook of Measurements*, New York, NY: CRC Press.
7. **Olufemi A. Omitaomu** (2013). Engineering Economic Evaluation. In Adedeji B. Badiru (Ed.), *Handbook of Industrial and Systems Engineering, Volume 2*, New York, NY: CRC Press.

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8. **Olufemi A. Omitaomu**, Steven J. Fernandez, and Budhendra L. Bhaduri (2013). Framework for Real-time, All-Hazards Global Situational Awareness. In Adedeji B. Badiru and LeeAnn Racz (Eds.), *Handbook of Emergency Response: A Human Factors and Systems Engineering Approach*, August. CRC Press.
 9. Varun Chandola, **Olufemi A. Omitaomu**, and Steven J. Fernandez (2012). Data Analysis for Real Time Identification of Grid Disruptions. In Ting Yu, Nitesh Chawla, and Simeon Simoff (Eds.), *Computational Intelligent Data Analysis for Sustainable Development*. Taylor & Francis, London, UK.
 10. **Olufemi A. Omitaomu** (2009). Engineering Economic Analysis. In: Hossein Bidgoli (Ed.), *The Handbook of Technology Management*, Wiley.
 11. Myong K. Jeong, Seong G. Kong, and **Olufemi A. Omitaomu** (2008). Data Mining in Multi-Dimensional Functional Data for Manufacturing Fault Diagnosis. In T. Warren Liao and Evangelos Triantaphyllou (Eds.), *Recent Advances in Data Mining of Enterprise Data: Algorithms and Applications*: pp. 463-504, Singapore: World Scientific.
 12. Auroop R. Ganguly, **Olufemi A. Omitaomu**, and Randy M. Walker (2007). *Knowledge discovery from sensor data for security applications*. In: Gaber, M. and J. Gama (eds.), *Learning from Data Streams – Processing Techniques in Sensor Networks*: pp. 187-204, Springer-Verlag.
 13. Ganguly, A.R., Fang, Y., Khan, S. and **Olufemi A. Omitaomu** (2007). *Knowledge discovery from sensor data for scientific applications*. In: Gaber, M. and J. Gama (eds.), *Learning from Data Streams – Processing Techniques in Sensor Networks*: pp. 205-229, Springer-Verlag.
 14. **Olufemi A. Omitaomu** (2006). Engineering Economic Evaluation. In Adedeji B. Badiru (Ed.), *Handbook of Industrial and Systems Engineering*, New York, NY: CRC Press.
 15. **Olufemi A. Omitaomu** (2006). Decision Trees. In Michael W. Berry and Murray Browne (Eds.), *Lecture Notes in Data Mining*: pp. 39-51, New Jersey, NJ: World Scientific Publishing of Hackensack.
 16. **Olufemi A. Omitaomu** (2006). Clustering: Categorical Attributes. In Michael W. Berry and Murray Browne (Eds.), *Lecture Notes in Data Mining*: pp. 143-152, New Jersey, NJ: World Scientific Publishing of Hackensack.

Refereed Journal/Conference Articles (* indicates Mentees)

17. R. Jafari-Marandi, M. Hu, and **Olufemi A. Omitaomu** (2016). A distributed decision framework for building clusters with different heterogeneity settings. *Applied Energy*, 165: 393-404.
18. **Olufemi A. Omitaomu**, Alex Sorokine, and Varun Chandola (2015). Virtualization of the Evolving Power Grid. *IEEE Smart Grid Newsletter Compendium 2015 – Smart Grid: The Next Decade*, September, (1 of 32 (out of some 215 articles) “best of the best” insightful articles from the IEEE Smart Grid Newsletter).
19. **Olufemi A. Omitaomu**, Xueping Li, and Shengchao Zhou (2015). Optimization Based Data Mining Approach for Forecasting Energy Demand. *Proceedings of the 2015 Industrial and Systems Engineering Research Conference*, May 30-June 2, Nashville, Tennessee, USA (**Won the 2015 ISERC Best Track Paper Award in Modeling and Simulation**).
20. C. Tao, Y. Ge., Q. Song, Y. Ge, and **Olufemi A. Omitaomu** (2014). Metric Ranking of Invariant Networks with Belief Propagation. *2014 IEEE International Conference on Data Mining (ICDM 2014)*, 1001-1006.
21. **Olufemi A. Omitaomu** (2014). Agent-Based Modeling of Power Plants Placement to Evaluate the Clean Energy Standard Goal. *Proceedings of the 2014 Industrial and Systems Engineering Research Conference*, May 31-June 3, Montreal, Canada.
22. **Olufemi A. Omitaomu** (2014). A Control Chart Approach for Representing and Mining Data Streams with Shape Based Similarity. *Proceedings of the 2014 Industrial and Systems Engineering Research Conference*, May 18-22, Montreal, Canada.

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23. Behailu B. Bekera, Royce A. Francis, and **Olufemi A. Omitaomu** (2014). Drought Risk Modeling for Thermoelectric Power Plants Siting using an Excess over Threshold Approach. *International Journal of System of Systems Engineering*, **5**(1), 25-44.
 24. **Olufemi A. Omitaomu** (2013). Profiling Real-Time Electricity Consumption Data for Process Monitoring and Control. *Proceedings of the 2013 Industrial and Systems Engineering Research Conference*, May 18-22, San Juan, Puerto Rico, USA.
 25. **Olufemi A. Omitaomu**, Cheng Liu, Mustafa S. Cetiner, Randy Belles, Gary T. Mays, and Mark A. Tuttle (2013). Identifying Potential Areas for Siting Interim Nuclear Waste Facilities Using Map Algebra and Optimization Approaches. *Proceedings of the 2013 Industrial and Systems Engineering Research Conference*, May 18-22, San Juan, Puerto Rico, USA.
 26. *Jeffrey B. Kodysh, **Olufemi A. Omitaomu**, Budhendra L. Bhaduri, and *Bradley S. Neish (2013). Methodology for Estimating Solar Potential on Multiple Building Rooftops for Photovoltaic Systems, *Sustainable Cities and Society*, **8**, 31-41.
 27. Alan M. Barker, Eva B. Freer, **Olufemi A. Omitaomu**, Steven J. Fernandez, Supriya Chinthavali, *Jeffrey B. Kodysh (2013). Automating Natural Disaster Impact Analysis: An Open Resource to Visually Estimate a Hurricane's Impact on the Electric Grid. *Proceedings of IEEE Southeast Conference*, April 4-7, Jacksonville, Florida, USA.
 28. **Olufemi A. Omitaomu**, Budhendra L. Bhaduri, *Christopher S. Maness, *Jeffrey B. Kodysh, and Amanda M. Noranzyk (2012). CoNECT: Data Analytics for Energy Efficient Communities. *Proceedings of 2012 ASME International Mechanical Engineering Congress and Exposition*, November 9-15, Houston, Texas, USA.
 29. **Olufemi A. Omitaomu**, *Jeffrey B. Kodysh, and Budhendra L. Bhaduri (2012). Modeling and Analysis of Solar Radiation Potentials on Building Rooftops. *Proceedings of 2012 ASME International Mechanical Engineering Congress and Exposition*, November 9-15, Houston, Texas, USA.
 30. **Olufemi A. Omitaomu**, Kyle L. Spafford, and Steven J. Fernandez (2012). A GPU-based Real-time Event Detection Framework for Power System Frequency Data Streams. *Proceedings for Modeling, Simulation and Optimization for the 21st Century Electric Power Grid*. October 21-25, Lake Geneva, Wisconsin, USA.
 31. Mohammed M. Olama, Kyle L. Spafford, **Olufemi A. Omitaomu**, Supriya Chinthavali, and Steven J. Fernandez (2012). High Performance Computing for Real-time Detection of Large Scale Power Grid Disruptions. *Proceedings for Modeling, Simulation and Optimization for the 21st Century Electric Power Grid*. October 21-25, Lake Geneva, Wisconsin, USA.
 32. **Olufemi A. Omitaomu**, *Christopher S. Maness, *Ian S. Kramer, *Jeffrey B. Kodysh, Budhendra L. Bhaduri, Chad A. Steed, Rajasekar Karthik, Philip J. Nugent, and Aaron T. Myers (2012). An Integrated Geovisual Analytics Framework for Analysis of Energy Consumption Data and Renewable Energy Potentials. *Proceedings of the Seventh International Conference on Geographic Information Science (GIScience 2012)*, September 18-21, Columbus, Ohio, USA.
 33. **Olufemi A. Omitaomu**, Alex Sorokine, and Varun Chandola (2012). Virtualization of the Evolving Power Grid. *IEEE Smart Grid Newsletter*, June. [eCopy is available](#).
 34. **Olufemi A. Omitaomu**, *B.R. Blevins, W.C. Jochem, G.T. Mays, R. Belles, T.J. Harrison, B.L. Bhaduri, *B.S. Neish, and A.N. Rose (2012). Adapting a GIS-Based Multi-criteria Decision Analysis Approach for Evaluating New Power Generating Sites. *Applied Energy*, **96**, 292-301.
 35. **Olufemi A. Omitaomu** and Adedeji B. Badiru (2012). An Economic Evaluation Framework for Assessing Renewable Energy Projects. *Proceedings of the 2012 Industrial and Systems Engineering Research Conference*, May 19-23, Orlando, Florida, USA.
 36. **Olufemi A. Omitaomu**, Budhendra L. Bhaduri, and *Jeffrey B. Kodysh (2012). Prediction of Solar Radiation on Building Rooftop: A Data-Mining Approach. *Proceedings of the 2012 Industrial and Systems Engineering Research Conference*, May 19-23, Orlando, Florida, USA.

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37. Xueping Li and **Olufemi A. Omitaomu** (2012). Optimal Design of Solar PV Array for Distributed Generation. *Proceedings of the 2012 Industrial and Systems Engineering Research Conference*, May 19-23, Orlando, Florida, USA.
 38. **Olufemi A. Omitaomu**, Vladimir A. Protopopescu, and Auroop R. Ganguly (2011). Empirical Mode Decomposition Technique with Conditional Mutual Information for Denoising Operational Sensor Data. *IEEE Sensors Journal*, **11(10)**: 2565-2575.
 39. Young-Seon Jeong, Myong K. Jeong, and **Olufemi A. Omitaomu** (2011). Weighted Dynamic Time Warping for Time Series Classification. *Pattern Recognition*, **44(9)**: 2231-2240.
 40. Gary T. Mays, Randy Belles, and **Olufemi A. Omitaomu** (2011). A Geographic Information System-Based Tool for Evaluating Siting Options. *International High-Level Radioactive Waste Management Conference*.
 41. **Olufemi A. Omitaomu** and Steven J. Fernandez (2011). Data Product for Situational Awareness of the Electric Grid System. *Proceedings of the AFIT-AFRL Product Development Research Symposium*.
 42. Yu Huang, Xueping Li, and **Olufemi A. Omitaomu** (2011). Conceptual SuperNetwork Model for Coordination Mechanisms in Humanitarian Relief Chain. *Proceedings of the Institute of Industrial Engineers Research Conference*, Reno, Nevada, May 21-25, 2011.
 43. **Olufemi A. Omitaomu**, Myong K. Jeong, and Adedeji B. Badiru (2011). On-line Support Vector Regression with Varying Parameters for Time-Dependent Data. *IEEE Transactions on Systems, Man, and Cybernetics: Part A – Systems and Humans*, **41(1)**: 191-197.
 44. Yi Fang, **Olufemi A. Omitaomu**, and Auroop R. Ganguly (2010). Incremental Anomaly Detection Approach for Characterizing Unusual Profiles. *Knowledge Discovery from Sensor Data Series*, **LNCS 5840**: 190-202.
 45. Steven J. Fernandez, Amy N. Rose, Edward A. Bright, Justin M. Beaver, Christopher T. Symons, and **Olufemi A. Omitaomu** (2010). Construction of Synthetic Populations with Key Attributes: Simulation Set-up while Accommodating Multiple Approaches within a Flexible Simulation Platform. *IEEE Second International Conference on Social Computing (SocialCom)*, 701-706.
 46. *Jason N. Bank, **Olufemi A. Omitaomu**, Steven J. Fernandez, and Yilu Liu (2009). Visualization and Classification of Power System Frequency Data Streams. *IEEE International Conference on Data Mining Workshop*, 650 – 655, Dec. 6.
 47. *Jason N. Bank, **Olufemi A. Omitaomu**, Steven J. Fernandez, and Yilu Liu (2009). Extraction and Visualization of Power System Inter-area Oscillatory Modes. *IEEE Power & Energy Society Annual Meeting*, Minneapolis, Minnesota, July 25 – 29.
 48. **Olufemi A. Omitaomu**, Auroop R. Ganguly, Bruce W. Patton, and Vladimir A. Protopopescu (2009). Anomaly Detection in Radiation Sensor Data with Application to Transportation Security. *IEEE Transactions on Intelligent Transportation Systems*, **10(2)**: 324-334.
 49. Auroop R. Ganguly, **Olufemi A. Omitaomu**, and Yu Jiao (2009). Information-Theoretic Approaches for Evaluating Complex Adaptive Social Simulation Systems. *Proceedings of the Human Behavior-Computational Intelligence Modeling Conference*, Oak Ridge, TN, June 23 – 24.
 50. Steven J. Fernandez, Amy N. Rose, Edward A. Bright, and **Olufemi A. Omitaomu** (2009). LandScan Data Sets for Automating Simulation Set-up while Accommodating Multiple Approaches within a Flexible Simulation Platform. *Proceedings of the Human Behavior-Computational Intelligence Modeling Conference*, Oak Ridge, TN, June 23 – 24.
 51. **Olufemi A. Omitaomu**, Yi Fang, and Auroop R. Ganguly (2008). Anomaly Detection from Sensor Data for Real-time Decisions. *Proceedings of the 2nd International Workshop on Knowledge Discovery from Sensor Data (SensorKDD-2008)* held in conjunction with the 14th International Conference on Knowledge Discovery and Data Mining (KDD 2008), Las Vegas, NV, August 24 – 27.
 52. Ranga Raju Vatsavai, **Olufemi A. Omitaomu**, Joao Gama, Nitesh V. Chawla, Mohamed M. Gaber, and Auroop R. Ganguly [Editors] (2008). *Workshop Proceedings, Second International*

Conference on Knowledge Discovery from Sensor Data (SensorKDD'08), the Fourteenth International Conference on Knowledge Discovery and Data Mining (KDD 2008), Las Vegas, NV, August.

53. **Olufemi A. Omitaomu**, Myong K. Jeong, Adedeji B. Badiru, and J. Wesley Hines (2007). On-Line Support Vector Regression Approach for the Monitoring of Motor Shaft Misalignment and Feedwater Flow Rate. *IEEE Transactions on Systems, Man, and Cybernetics: Part C – Applications and Reviews*, **37(5)**: 962-970.
54. Yongjin Kwon, **Olufemi A. Omitaomu**, and Gi-Nam Wang (2007). Data Mining Approaches to Modeling Complex Electronic Circuit Design Activities. *Journal of Computers and Industrial Engineering*, **54**: 229 – 241.
55. **Olufemi A. Omitaomu** and Adedeji B. Badiru (2007). Fuzzy Present Value Analysis Model for Evaluating Information System Projects. *The Engineering Economist*, **52(2)**: 157-178.
56. Seong-Hoon Cho, **Olufemi A. Omitaomu**, Neelam Poudyal, and David B. Eastwood (2007). The Impact of an Urban Growth Boundary on Land Development in Knox County, Tennessee: A Comparison of Two-Stage Probit Least Squares and Multilayer Neural Network Models. *Journal of Agricultural and Applied Economics*, **39(3)**: 701-717.
57. Auroop R. Ganguly, Joao Gama, **Olufemi A. Omitaomu**, Mohamed M. Gaber, and Ranga Raju Vatsavai [Editors] (2007). *Workshop Proceedings, First International Conference on Knowledge Discovery from Sensor Data (SensorKDD'07)*, the Thirteenth International Conference on Knowledge Discovery and Data Mining (KDD 2007), San Jose, CA, August.
58. **Olufemi A. Omitaomu**, Myong K. Jeong, Adedeji B. Badiru, and J. Wesley Hines (2006). On-line Prediction of Motor Shaft Misalignment Using Fourier-Transformed Power Spectrum Data and Support Vector Regression. *ASME Transactions, Journal of Manufacturing Science and Engineering*, **128(4)**: 1019-1024.
59. Adedeji B. Badiru, Sunday O. Asaolu, and **Olufemi A. Omitaomu** (2006). Eyewitness Information Management System Using NeuroFuzzy Classification Schemes. *Journal of Information Science and Technology*, **2(3)**: 49-64.
60. Yongjin Kwon, Myong K. Jeong, and **Olufemi A. Omitaomu** (2006). Adaptive Support Vector Regression Analysis of Closed-Loop Inspection Accuracy. *Journal of Machine Tools and Manufacture*, **46(6)**: 603-610.
61. **Olufemi A. Omitaomu**, Levi D. Smith, and Adedeji B. Badiru (2005). The ENGINEering Economic Analysis (ENGINEA) Software: Enhancing Teaching and Application of Economic Analysis Techniques. *ASEE Computers in Education Journal*, **15(4)**: 32-38.
62. **Olufemi A. Omitaomu** and Adedeji B. Badiru (2004). Incorporation of Information Systems Economics into Engineering Economic Analysis Courses. *Proceedings of the 2004 ASEE Annual Conference and Exposition, Engineering Education Researches New Heights*, 2004, pp. 7177-7182.
63. Badiru, Adedeji B. and **Olufemi A. Omitaomu** (2003). Design and Analysis of Tent Cash Flow Models for Engineering Economy Lectures. *The Engineering Economist*, **48(4)**: 363-374.

Conference Presentations

64. **Olufemi A. Omitaomu** (2013). Profiling Real-Time Electricity Consumption Data for Process Monitoring and Control. *Presented at the 2013 Industrial and Systems Engineering Research Conference*, May 18-22, San Juan, Puerto Rico, USA.
65. **Olufemi A. Omitaomu** (2013). Identifying Potential Areas for Siting Interim Nuclear Waste Facilities Using Map Algebra and Optimization Approaches. *Presented at the 2013 Industrial and Systems Engineering Research Conference*, May 18-22, San Juan, Puerto Rico, USA.
66. *Jeffrey B. Kodysh and **Olufemi A. Omitaomu** (2013). Geospatially Profiling Smart Meter Data Energy Consumption Patterns. *Presented at the 2013 Annual Conference of the Association of American Geographers*, Los Angeles, California, USA, April 9-13, 2013.

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67. Budhendra L. Bhaduri, **Olufemi A. Omitaomu**, *Ian S. Kramer, and *Jeffrey B. Kodysh (2012). CoCONNECT: A Computational Framework for Energy Efficient Communities. *Presented at the 2012 Annual Conference of the Association of American Geographers*, New York City, New York, USA, February 2012.
 68. *Ian S. Kramer, **Olufemi A. Omitaomu**, and Budhendra L. Bhaduri (2012). SpatialNet: GeoAgent-based Architecture for automated Real-time Analysis and Dissemination. *Presented at the 2012 Annual Conference of the Association of American Geographers*, New York City, New York, USA, February 2012.
 69. *Jeffrey B. Kodysh and **Olufemi A. Omitaomu** (2012). Visual-SOLAR: Modeling Solar Energy Potential for Distributed Generation. *Presented at the 2012 Annual Conference of the Association of American Geographers*, New York City, New York, USA, February 2012.
 70. *Bradley S. Neish and **Olufemi A. Omitaomu** (2012). Power Generation Plant Placement Algorithm and Visualization Tool. *Presented at the 2012 Annual Conference of the Association of American Geographers*, New York City, New York, USA, February 2012.
 71. Richard M. Medina and **Olufemi A. Omitaomu** (2011). The Complex Geography of Terrorism in Nigeria. *Presented at the 2011 Annual Conference of the Association of American Geographers*, Seattle, Washington, USA, April 12-16, 2011.
 72. **Olufemi A. Omitaomu**, Randy Belles, Stanton W. Hadley, Gary T. Mays, and *Brandon R. Blevins (2011). Spatial Modeling and Site Suitability Assessment for Compressed Air Energy Storage. *Presented at the 2011 Annual Conference of the Association of American Geographers*, Seattle, Washington, USA, April 12-16, 2011.
 73. *Jeffrey B. Kodysh and **Olufemi A. Omitaomu** (2011). A GIS-based Methodology for Assessing Rooftop Solar Energy Potential. *Presented at the 2011 Annual Conference of the Association of American Geographers*, Seattle, Washington, USA, April 12-16, 2011.
 74. Young-Seon Jeong, Myong K. Jeong, and **Olufemi A. Omitaomu** (2010). A Novel Distance Measure for Time Series Data Mining. *Presented at the 2010 INFORMS Annual Meeting*, Austin, Texas, Nov 7-10, 2010.
 75. **Olufemi A. Omitaomu**, Steven J. Fernandez, and Budhendra L. Bhaduri (2010). Estimating the Spatial Distribution of Population without Power during Extreme Weather Events. *Presented at the 2010 Annual Meeting of the Association of American Geographers*, Washington, DC, April 14 – 18, 2010.
 76. **Olufemi A. Omitaomu**, *Jason N. Bank, and Steven J. Fernandez (2009). Online Data Mining Framework for the Electric Power Grid. *Presented at the NASA Conference on Intelligent Data Understanding*, Moffett Field, CA, October 14 – 16, 2009.
 77. **Olufemi A. Omitaomu** and Auroop R. Ganguly (2008). Knowledge Discovery from Heterogeneous Data for Risk-Informed Decisions to Facilitate Rapid Response. *Presented at the 2008 INFORMS Annual Meeting*, Washington, DC, October 11 – 15.
 78. **Olufemi A. Omitaomu** (2008). A Parallel Disintegrated Model for Uncertainty Analysis in Estimating Electrical Power Outage Areas. *Presented at the 2008 AGU Session on Impacts of Severe Weather on Environment, Economy, and Society* (Abstract #: U41A-02), Fort Lauderdale, FL, May 27 – 30.
 79. Raju Vatsavai, Auroop R. Ganguly, **Olufemi A. Omitaomu**, and Budhendra L. Bhaduri (2008). Geospatial-temporal Data Mining for Infrastructure under Stress from Severe Weather Events. *Presented at the 2008 AGU Session on Impacts of Severe Weather on Environment, Economy, and Society* (Abstract #: U41A-01), Fort Lauderdale, FL, May 27 – 30.
 80. Randy M. Walker, **Olufemi A. Omitaomu**, Auroop R. Ganguly, R.K. Abercrombie, and F.T. Sheldon (2008). Multimodal Integrated Safety, Security, and Environmental Program Strategy, *Presented at the 87th Annual Meeting of the Transportation Research Board*, January 2008, Washington, DC, 08-2644.
 81. Auroop R. Ganguly, **Olufemi A. Omitaomu**, Vladimir Protopopescu, Bruce Patton, Randy Walker, Yi Fang, Amrudin Agovic, and Arindam Banerjee (2007). *Anomaly Detection from*

Heterogeneous Sensor Data with Application to Transportation Security, Presented at the 2007 National Rural Intelligent Transportation Systems Conference, Oct. 7-10, Traverse City, Michigan.

82. Adedeji B. Badiru, **Olufemi A. Omitaomu**, Godswill Nsofor, and Lynn A. York (2005). Concept of Program Management: Product Assurance of Command and Control Processes. *Presented at the 10th International Command and Control Research and Technology Symposium (CCRTS): The Future of C2*. McLean, VA. June 13-16.
83. **Olufemi A. Omitaomu**, Myong K. Jeong, Adedeji B. Badiru, and J. Wesley Hines (2005). A support vector regression approach to machinery misalignment prediction using high-dimensional power spectrum data. *Presented at the 2005 Maintenance and Reliability Conference (MARCON 2005)*, Gatlinburg, Tennessee, May 3-6.
84. **Olufemi A. Omitaomu**, Levi D. Smith, and Adedeji B. Badiru (2005). The Design and Development of ENGINEering Economic Analysis (ENGINEA) Software. *Presented at the 2005 Industrial Engineering Research Conference (IERC)*, Atlanta, Georgia, May.
85. **Olufemi A. Omitaomu**, Myong K. Jeong, Adedeji B. Badiru, and J. Wesley Hines (2005). Motor Shaft Alignment Prediction Using On-line Support Vector Regression. *Presented at the 2005 INFORMS Annual Meeting*, November 13-16, San Francisco, California.
86. **Olufemi A. Omitaomu**, C. Godswill Nsofor, and Adedeji B. Badiru (2004). Integrative Present Value Analysis Model for Evaluating Information System Projects. *Presented at the 2004 Industrial Engineering Research Conference (IERC)*, Houston, Texas, May.
87. Adedeji B. Badiru, Vincent Delgado, Jamie Ehresman-Gunter, **Olufemi A. Omitaomu**, Godswill Nsofor, Sirisha Saripalli (2004). Graphical and Analytical Methodology for Cost Benchmarking for New Construction Projects. *Presented at the 13th International Conference on Management of Technology (IAMOT)*, Washington, DC, April 3-7.
88. Badiru, A.B. and **Olufemi A. Omitaomu** (2003). Tent Cash Flow Designs and Analysis for Gradient Cash Flow Lectures. *Presented at the 2003 ASEE Annual Conference and Exposition: Staying in Tune with Engineering Education*, 2003, pp. 3427-3441.
89. Badiru, A.B. and **Olufemi A. Omitaomu** (2003). Integrative Learning and Forgetting Models for Quality and Productivity Improvement Analysis. *Presented at the 2003 INFORMS Annual Meeting*, Atlanta, Georgia, October.
90. Badiru, A.B., Don McDaniel, and **Olufemi A. Omitaomu** (2003). An Integrative Study of Factors of Industrial Development in East Tennessee. *Presented at the 31st International Conference on Computers and Industrial Engineering*, San Francisco, California, February.
91. Badiru, A.B. and **Olufemi A. Omitaomu** (2002). Application of Data Mining to Maintenance Management Systems. *Presented at the 6th Africa-USA International Conference in Manufacturing Technology*, Abuja, Nigeria, May.
92. Badiru, A.B., **Olufemi A. Omitaomu**, and F.B. Odunayo (2001). Design of a Matrix Knowledge Base Framework for Plant Maintenance Planning and Control. *Presented at the 2001 Maintenance and Reliability Conference*, Gatlinburg, Tennessee, May.

Project Reports

93. Randy Belles and **Olufemi A. Omitaomu** (2014). Population Sensitivity Evaluation of Two Proposed Hampton Roads Area Sites for a Possible Small Modular Reactor. *Oak Ridge National Laboratory Technical Manual ID: ORNL/TM-2014/300*.
94. Randy Belles and **Olufemi A. Omitaomu** (2014). Evaluation of Possible Small Modular Reactor Sites near Federal Energy Clusters to Support Federal Clean Energy Goals. *Oak Ridge National Laboratory Technical Manual ID: ORNL/TM-2014/433*.
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 101. Gary T. Mays, Thomas J. Harrison, and **Olufemi A. Omitaomu** (2010). Preliminary Report on Siting Evaluation Tool for Commercial Nuclear Power Plants. *Developed by Oak Ridge National Laboratory, LTR/DOE-NE/Siting-2010/002*, November.
 102. **Olufemi A. Omitaomu** (2010). A GIS Approach for Modeling the Potential Siting Options for Compressed Air Energy Storage. *Oak Ridge National Laboratory Technical Manual ID: ORNL/TM-2010/224*.
 103. Jason N. Bank and **Olufemi A. Omitaomu** (2009). Development of an Inter-area Modal Extraction and Visualization Procedure for Power Systems Using Phasor Measurement Data. *Oak Ridge National Laboratory Technical Manual ID: ORNL/TM-2009/323*.
 104. Ganguly, A.R., Whitmeyer, J.M., **Olufemi A. Omitaomu**, Hadzikadic, M., Gilman, P., Brecke, P.K., Khouja, M.J., Fernandez, S.J., Eichelberger, C.N., McLean, A.L., Yu, J., Middleton, E.J., Carmichael, T.D., Saric, A. and M. Sun (2008). Towards a characterization and systematic evaluation framework for theories and models of human, societal, behavioral, and cultural processes. *Oak Ridge National Laboratory Technical Manual ID: ORNL/TM-2008/062*.
 105. **Olufemi A. Omitaomu** and Auroop R. Ganguly (2006). Statistical Methods and Wavelet-Based Approaches for Analyzing Truck Radiation Data. *Oak Ridge National Laboratory Technical Manual ID: ORNL/TM-2006/596*.

Invention Disclosures

1. **Olufemi A. Omitaomu** and Budhendra L. Bhaduri. CoNNECT - Citizen Engagement for Energy Efficient Communities.
2. Fernandez, S.J., **Olufemi A. Omitaomu**, and others. Real-Time Simulation of Power Grid Disruptions (DOE S-NUMBER: S-124,011)
3. Ganguly, A. R. and **Olufemi A. Omitaomu**. Anomaly Detection and Risk Assessment Tool for Security Decisions (DOE S-NUMBER: S-115,121).

Issued Patent

1. **Olufemi A. Omitaomu** and Steven Fernandez, *Method for Estimating Power Outages and Restoration during Natural and Man-made Events*, US Patent 9,230,289, January 5, 2016.

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- **Olufemi A. Omitaomu** and Steven Fernandez. VERDE Analytic Modules (UT-Battelle Case No: 50000014).

Professional Services

- *Program Committee Member*, 1st International Workshop on Data-intensive Process Management in Large-Scale Sensor Systems (DPMSS 2012): From Sensor Networks to Sensor Clouds at the 12th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing, May 13-16, 2012.
- *Session Organizer and Chair* – Distributed Renewable Generation – at the 2012 Industrial and Systems Engineering Research Conference, May 19-23, 2012.
- *Program Committee Member*, First International Workshop on Analytics for Cyber-Physical Systems at the 2012 International Conference on Data Mining, April 26-28, 2012.
- *Session Organizer and Chair* – Energy Mapping and Modeling - 2012 Annual Conference of the Association of American Geographers, New York City, New York, Feb 2012.
- *Session Chair* – Energy Mapping and Modeling - 2011 Annual Conference of the Association of American Geographers, Seattle, Washington, April 12-16, 2011.
- *Workshop Co-Organizer and Lead-Chair*, Fourth International Workshop on Knowledge Discovery from Sensor Data (SensorKDD-2010) at the 16th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, July 25 – 28, 2010.
- *Workshop Co-Organizer and Lead-Chair*, Third International Workshop on Knowledge Discovery from Sensor Data (SensorKDD-2009) at the 15th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, June 28 – July 1, 2009.
- *Program Committee Member* – First International Workshop on Data Warehousing and Knowledge Discovery from Sensors and Streams at the 5th International Conference on Distributed Computing in Sensor Systems (DCOSS 2009), June 8 – 10, 2009.
- *Workshop Co-Organizer and Co-Chair*, Second International Workshop on Knowledge Discovery from Sensor Data (SensorKDD-2008) at the 14th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, August 24-27, 2008.
- *Workshop Co-Organizer and Co-Chair*, First International Workshop on Knowledge Discovery from Sensor Data (SensorKDD-2007) at the 13th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, August 12-15, 2007.
- *Workshop Program Committee Member*, International Workshop on Knowledge Discovery from Ubiquitous Data Streams at the 18th European Conference on Machine Learning (ECML) and the 11th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD), September 17-21, 2007.
- *Conference Session Co-Organizer and Co-Chair*, Software Tools for Engineering Economic Analysis Session at the Institute of Industrial Engineers Annual Research Conference, Atlanta, Georgia, May 14-18, 2005.
- *Board Member*, Engineering Economy Division, Institute of Industrial Engineers, elected, May 2002 – May 2006.

Invited Peer Reviewer (Current and Past)

- *Data Mining and Knowledge Discovery*
- *International Journal of Knowledge and Learning*
- *Information Fusion (International Journal on Multi-Sensor, Multi-Source Information Fusion)*
- *International Journal of Operations Research and Information Systems (IJORIS)*
- *IEEE Transactions on Automation Science and Engineering*
- *ASME Journal of Manufacturing Science and Engineering*
- *Journal of Computing in Civil Engineering*

-
- *IEEE Transactions on Systems, Man and Cybernetics – Part B: Cybernetics*
 - *DOE Early Career Research Program Review Panel*, January 11 – 13, 2011.
 - *DOE ASCR SBIR Review*, 2010.
 - *Journal of Optimization Methods and Software*
 - *IEEE Smart Grid Communication*
 - *American Society for Engineering Education Conference*
 - *Soft Computing Journal*
 - *Sensors*

Professional Membership

- Institute of Electrical and Electronic Engineers (IEEE)
- Institute of Industrial and Systems Engineers (IISE)
- Institute for Operations Research and the Management Sciences (INFORMS)

Mentees

Post-Doc Research Associate

- **Dr. Melissa R. Allen** (January 2015 – Date)
Ph.D. in Energy Science and Engineering, University of Tennessee, Knoxville.

Graduate Research Associates

- **Jeffrey B. Kodysh** (May 30, 2011 to May 2013)
B.A. in Geography, University of Toledo
- **Brandon Blevins** (November 2010 – July 15, 2011)
B.A. in Environmental Science, University of Tennessee, Knoxville.
(Now: Project Manager, Business Resiliency, Southern California Edison).

Student Interns

○ Graduate Students

- **Marc R. Fialkoff, JD** (June – August 2015; January – December 2016)
Ph.D. Student, Urban Affairs and Planning, Virginia Tech
- **Hakeem Jones** (June – August 2015)
Ph.D. Student, Computer Science, Clemson University
- **Behailu B. Bekera** (June – August 2014)
Ph.D. Student, Systems Engineering, The George Washington University
- **Jason Bank** (June - December 2009)
Ph.D. Student, Electrical Engineering, Virginia Tech.
Graduated in December 2009 – Now with the National Renewable Energy Laboratory (NREL)
- **Christopher Ian Lanclos** (May – August 2012)
Ph.D. Student, Computer Science, Norfolk State University

○ Undergraduate Students

- **Grant T. Powell** (June – August 2015)
Industrial and Systems Engineering, University of Tennessee, Knoxville
- **David T. Herberich** (June – August 2015)
Industrial and Systems Engineering, University of Tennessee, Knoxville
- **David Lu** (June – August 2014)
Computer Science, University of Tennessee, Knoxville
- **Amy Albaugh** (June – August 2014)
Energy Science and Engineering, University of Tennessee, Knoxville
- **Daniel Noteboom** (June – August 2013)
Computer Science and Engineering, University of Washington.
- **Christopher Scott Maness** (October 2011 – May 2012)
Computer Science, East Tennessee State University.

-
- **Amanda Noranzyk** (June – August 2011)
Mechanical Engineering, Clemson University, South Carolina.
 - **Jeffrey B. Kodysh** (June – August 2010; January – May 2011)
Geography, University of Toledo, Ohio.
Jeff's research during this period was awarded 3rd Place in the Energy Category at the 2010 DOE's Science and Energy Research (SERCh) Competition at Argonne National Laboratory, Chicago on November 15, 2010.
 - **Cornelius M. Singleton, Jr** (June – August 2010)
Computer Science, South Carolina State University.