

Dr. Levent Yilmaz

CONTACT INFORMATION

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CITIZENSHIP

Dual Citizenship - USA, Turkish

EDUCATION

Ph.D.	Computer Science	Virginia Tech
M.S.	Computer Science	Virginia Tech
B.S.	Computer Engineering and Information Science	Bilkent University

EXPERIENCE AND RESEARCH INTERESTS

- 2008 - present: Associate Professor, Computer Science & Software Engineering, Auburn University.
- 2008 - present: Associate Professor, Industrial & Systems Engineering, Auburn University.
- 2003 - 2008: Assistant Professor, Computer Science & Software Engineering, Auburn University.
- 1999 - 2003: Senior Research Engineer, Trident Systems Incorporated.
- 1994 - 1999: Graduate Teaching /Research Assistant, Virginia Tech.

Levent Yilmaz is Associate Professor of Computer Science and Software Engineering and Industrial and Systems Engineering in the College of Engineering at Auburn University. Prior to joining faculty in 2003, he was a senior research engineer in the Simulation and Software Division of Trident Systems Incorporated, in Fairfax, Virginia, where he worked as a lead project engineer and principle investigator. Dr. Yilmaz earned his Ph.D. and M.S. degrees from Virginia Polytechnic Institute and State University (Virginia Tech). His research is at the intersection of **Modeling and Computer Simulation**, **Agent-directed Simulation**, and **Complex Adaptive Systems** with applications in

- advancement of the **theory and methodology of modeling and computer simulation** via novel formalisms — generative multisimulation, autonomic introspective simulation, symbiotic adaptive multisimulation — and their use in **creative discovery systems** and **decision support systems engineering**
- **Socio-technical, cognitive, cultural systems** - systems models of creativity, open innovation and science, simulation of cooperative knowledge processing/problem solving, social simulation of projects, organizations, communities, and processes.

EXTERNAL
GRANTS

Awards:

1. PI: Levent Yilmaz (with Bryan Edwards, Co-PI). Dynamics of Creativity and Innovation in Virtual Scientific Commons. Funding Agency: National Science Foundation (NSF). Duration: 3 years (10/2008 - 10/2011). Amount: \$315,029.
2. PI: Levent Yilmaz. The Synergy of Conflict and Creativity in Open Source Software Development Communities. Funding Agency: National Science Foundation (NSF). Duration: 1 year (8/2007 - 8/2008). Amount: \$76,450.
3. PI: Levent Yilmaz, co-PI: Alvin Lim. Title: Insertion of Multiresolution Simulation Technology into a Federated Simulation Infrastructure. Funding Agency: Air Force Research Laboratory. Duration: 07/2006 - 6/2007. Amount: \$121,647.
4. PI: Levent Yilmaz, co-PI: Michael Stoddard (Trident Systems Incorporated). Title: An Agent-supported Scalable Test Framework for Complex System of Systems. Funding Agency: Missile Defense Agency (STTR Program). Duration: 09/2006- 09/2007. Amount: \$46,770.
5. PI: Levent Yilmaz. Title: Software in-kind-grant (Software donation), MAK Technologies Corporation. Total Value of Software: \$300,000.
6. PI: Levent Yilmaz. Title: Agent-supported Active Model Retrieval on the Grid. Funding Agency: Trident Systems Incorporated. Duration: 01/28/04 - 12/23/05. Amount: \$166,475.
7. PI: Levent Yilmaz. Title: Tools for Testing and Certification of Distributed, Dynamic Configurations of a Total Ship Computing Environment, Funding Agency: Trident Systems Incorporated. Duration: 01/2004-07/2005. Amount: \$29,963.
8. PI: Levent Yilmaz. Title: Integrating Model-Based Verification into Software Design Education. Funding Agency: Trident Systems Incorporated. Duration: 01/28/04 - 08/01/04. Amount: \$34,980.
9. PI: Levent Yilmaz. Title: Architecture Difference Analysis and Its Applications, Funding Agency: Trident Systems Incorporated. Duration: 12/19/03 - 06/25/04. Amount: \$34,426.

Pending:

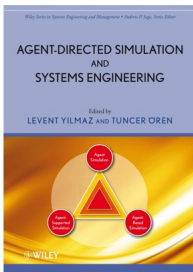
1. PI: Levent Yilmaz (with C. Anthony Hunt, Co-PI). Creative Discovery Systems: Generative Parallax Simulation and Its Application to Epithelial Cell Morphogenesis. Funding Agency: James S. McDonnell Foundation. Duration: 3 years (8/2009 - 8/2013). Amount: \$430,900.
2. PI: Levent Yilmaz. Conflict, Creativity, and Innovation in Open Innovation Socio-Ecologies and Markets: Complex Adaptive Systems Perspective. Funding Agency: National Science Foundation (NSF). Duration: 2 years (10/2009 - 10/2011). Amount: \$205,534.
3. PI: Levent Yilmaz. Generative Parallax Simulation: Decision Support under Uncertainty using Principles, Theories, and Models of Creative Cognition. Funding Agency: National Science Foundation (NSF). Duration: 2 years (9/2009 - 10/2012). Amount: \$315,349.
4. PI: Levent Yilmaz. Dynamics of Coopetitive Knowledge Creation and Innovation Emergence in Cyber-enabled Health Science Collaboratories. Funding Agency: National Institute of Health (NIH). Duration: 2 years (9/2009 - 10/2011). Amount: \$298,751.
5. co-PI: Levent Yilmaz (with C. Anthony Hunt, PI). In Silico Epithelial Morphogenesis: Hypothesis Testing and Knowledge Translation. Funding Agency: National Institute of Health (NIH). Duration: 2 years (9/2009 - 10/2011). Amount: \$498,651.

EDITED BOOKS AND
PROCEEDINGS

1. Yilmaz L. and T. Ören (Eds.) (2009). *Agent-Directed Simulation and Systems Engineering*, Wiley (forthcoming in Wiley Series in Systems Engineering and Management).
2. Zhang Y., T. Ören, M Sierhuis, G, Madey, L. Yilmaz (Eds.) (2009). Special Issue on Agent-Directed Simulation, *The International Journal of Intelligent Control and Systems* (in press).

3. O. Balci, X. Hu, M. Sierhuis, and L. Yilmaz (Eds.). (2009). The Proceedings of the *2009 Summer Computer Simulation Conference* of the 2009 International Simulation Multiconference (ISMc'09), July, 2009. SCS Press.
4. Edwards S. and L. Yilmaz (Eds.) (2008). Trends in Software Engineering Education, Special Issue of the *International Journal of Engineering Education*, vol. 24. no.4, (August 2008).
5. Yilmaz L., T. Ören, and Precha Thavikulwat (Eds.) (2008) Intelligent Agents, Artificial Intelligence, and Simulation Gaming, Special Issue of the *Simulation & Gaming: An Interdisciplinary Journal of Theory, Practice, and Research*, vol. 39, no. 1, March 2008 (pp. 7-9).
6. Yilmaz L. and T. Ören (Eds.) (2005) Agent-Directed Simulation, Special Issue of the *Simulation: Transactions of the Society for Computer Simulation International*. Vol. 81, No. 7 (July 2005).
7. Yilmaz L. (Ed.) (2005) The Proceedings of the *Agent-Directed Simulation Symposium* of the 2005 Spring Simulation Multiconference, SCS Press, Simulation Series vol. 37, no. 2, San Diego, CA.

BOOK CHAPTERS



1. Zeigler B., A. Muzy, L. Yilmaz (2009). "Artificial Intelligence in Modeling and Simulation," *Encyclopedia of Complexity and System Science*, Editor-in-Chief, Robert A. Meyers, Springer, Springer-Verlag, Heidelberg, Germany.
2. Yilmaz L. and B. Mitchell (2009). "Autonomic Introspective Simulation Systems," to appear in Yilmaz and Ören (eds.) *Agent-directed Simulation and Systems Engineering*, Wiley Series in Systems Engineering and Management. Wiley, Germany.
3. Yilmaz L. and T. Ören (2009). "Agent-directed Simulation," to appear in Yilmaz and Ören (eds.) *Agent-directed Simulation and Systems Engineering*, Wiley Series in Systems Engineering and Management. Wiley, Germany.
4. Balci O., W. F. Ormsby and L. Yilmaz (2009). "Quality Assurance Simulation Studies of Complex Networked Agent Systems," to appear in Yilmaz and Ören (eds.) *Agent-directed Simulation and Systems Engineering*, Wiley Series in Systems Engineering and Management. Wiley, Germany.
5. Ören T. and L. Yilmaz L. (2009). "Failure Avoidance in Agent-directed Simulation," to appear in Yilmaz and Ören (eds.) *Agent-directed Simulation and Systems Engineering*, Wiley Series in Systems Engineering and Management. Wiley, Germany.
6. Yilmaz L. (2009). "Toward Systems Engineering for Agent-directed Simulation," to appear in Yilmaz and Ören (eds.) *Agent-directed Simulation and Systems Engineering*, Wiley Series in Systems Engineering and Management. Wiley, Germany.
7. Smith J., E. Sahin, and L. Yilmaz (2009). "Agent-directed Simulation for Manufacturing System Engineering," to appear in Yilmaz and Ören (eds.) *Agent-directed Simulation and Systems Engineering*, Wiley Series in Systems Engineering and Management. Wiley, Germany.
8. Yilmaz L. and J. Phillips (2009). "Agent Simulation for Software Process Performance Analysis," to appear in Yilmaz and Ören (eds.) *Agent-directed Simulation and Systems Engineering*, Wiley Series in Systems Engineering and Management. Wiley, Germany.
9. Yilmaz L. (2008). "Collaborative Technology: Improving Team Cooperation and Awareness in Distance Learning for IT Education," Chapter 8 in the *Handbook of Distance Learning for Real-time and Asynchronous Information Technology*. (Eds. Negash S, Whitman M., Woszczynski A., Hoganson K., Mattord H.), pp. 157-169.
10. Yilmaz L. and A. Tolk (2008). "A Unifying Multimodel Taxonomy and Agent-Supported Multisimulation Strategy for Decision-Support," in *Studies in Computational Intelligence (SCI) - Intelligent Decision Making: An AI-based Approach* (Eds. Phillips-Wren, Ichalkaranje, and Lakhmi). vol. 97, pp. 189-222.

11. Yilmaz L. and V. Ustun (2004). "Toward Federated Simulation on the Semantic Web: Exploring the Physiology of Web Services for Dynamic Composability and Interoperability," in *Modeling Command & Control Interoperability: Cutting the Gordian Knot*, pp. 129-150. SCS Press, San Diego, CA.
12. Yilmaz L. (2006). "Computer Aided Software Engineering. (In Turkish: Bilgisayar Destekli Yazilim Muhendisligi)," In: *Informatics Encyclopedia of Turkey* (In Turkish: Turkiye Bilisim Ansiklopedisi), Istanbul, Turkey. (March 2006).
13. Yilmaz L. (2006). "Formal Methods in Software Engineering (In Turkish: Yazilimda Bicimsel Yontemler)," In: *Informatics Encyclopedia of Turkey* (In Turkish: Turkiye Bilisim Ansiklopedisi), Istanbul, Turkey (March 2006).

JOURNAL ARTICLES

1. Yilmaz L. and T. Ören (2009). "On the Synergy of Simulation and Agents: An Innovation Paradigm Perspective," to appear in *International Journal of Intelligent Control and Systems (IJICS)*.
2. Yilmaz L. and C. A. Hunt (2009). "Advanced Modeling Concepts and Generative Simulation Methods for Creative Discovery Systems," submitted to *Simulation Modelling Practice and Theory*
3. Yilmaz L. (2009). "Exploratory Simulation of the Synergy of Conflict and Collective Creativity in Open Source Software Communities" submitted to *the International Journal of Open Source Software and Processes (IJOSSP)*.
4. Yilmaz L., T. Ören, and A. Tolk (2009). "Perspectives on the Evolution of the Use of Agents for Simulation and Simulation for Agents," submitted to *Simulation Modelling Practice and Theory*.
5. Bradley M. and L. Yilmaz (2008). "Symbiotic Adaptive Multisimulation: An Autonomic Simulation Framework for Real-time Decision Support under Uncertainty," *ACM Transactions on Modeling and Simulation*, vol.19, no.1, December 2008.
6. Yilmaz L. (2008). "Reasoning about Conceptual Interoperability of Simulations using Meta-level Graph Relations," Special issue on Ontology-driven Interoperability of the *Intelligent Decision Technologies Journal*, vol.2, no.1, pp. 33-51. January 2008.
7. Phillips J. and L. Yilmaz L.(2007). "Team-RUP: Agent-based Simulation of Team Behavior in Software Development Organizations," *International Journal of Simulation and Process Modelling*, vol. 3, no. 3, pp. 170-179.
8. Yilmaz L. and J. Phillips (2007). "The Impact of Turbulence on the Effectiveness and Efficiency of Software Development Teams in Small Organizations," *Software Process: Improvement and Practice Journal*, vol 12., no.3, pp. 247-265. May/June 2007.
9. Yilmaz L. (2007). "A Strategy for Improving Dynamic Composability: Ontology-driven Introspective Agent Architectures," *Journal of Systemics, Cybernetics, and Informatics*, vol. 5, no. 5, pp. 1-9.
10. Yilmaz L. (2007). "Toward Next Generation Simulation-based Computational Tools for Conflict and Peace Studies," *Social Science Computer Review*, vol. 25, no. 1, pp. 48-60. Spring 2007.
11. Yilmaz L. (2006). "Expanding Our Horizons in Teaching the Use of Intelligent Agents for Simulation Modeling of Next Generation Engineering Systems," *International Journal of Engineering Education*, vol. 22, no.5 pp. 1097-1104.
12. Yilmaz L. (2006). "Validation and Verification of Social Processes within Agent-Based Computational Organization Models," *Computational & Mathematical Organization Theory*, vol. 12, no. 4, pp. 283-312. December 2006.
13. Yilmaz L., T. Ören, and A. Nasser-Ghasem (2006). "Agents, Simulation, and Gaming," *Simulation & Gaming Journal*. vol. 37, no. 3, pp. 339-349.

14. Wang S. and L. Yilmaz (2006). "A Strategy and Tool Support to Motivate the Study of Formal Methods in Software Design Courses," *International Journal of Engineering Education*, vol. 22, no. 2, pp. 407-418.
15. Yilmaz L, T. Ören, A. Nasser-Ghasem. (2006). "Simulation-Based Problem Solving Environments for Conflict Studies," *Simulation & Gaming Journal*. vol. 37, no. 4, pp. 534-556. December 2006.
16. Yilmaz L. and S. Paspuletti (2005). "Toward a Meta-Level Framework for Agent-supported Interoperation of Defense Simulations," *Journal of Defense Modeling and Simulation*. vol 2, no 3, pp. 161-175.
17. Yilmaz L and S. Wang (2005). "Integrating Model-Based Verification into Software Design Education," *Journal of Science, Technology, Engineering, and Math Education*, vol. 6, no. 3-4, pp.29-34.
18. Yilmaz L. (2004) "Verifying Collaborative Behavior in Component-Based DEVS Models," in *Simulation: Transactions of the Society for Modeling and Simulation International*. Special Issue: Component-Based Modeling and Simulation, Vol. 80, No. 7-8, 399-415.
19. Yilmaz L. (2004). "On the Need for Contextualized Introspective Simulation Models to Improve Reuse and Composability of Defense Simulations," *Journal of Defense Modeling and Simulation*, vol. 1, no. 3. pp. 135-145.
20. Yilmaz L. (2004). "Advancing the Theory and Methodology of M&S to Explore, Understand, and Manage Conflicts," *Modeling & Simulation* vol 3. no 2, pp. 14-16.
21. Yilmaz L. and T. Ören (2004). "Prospective Issues in Simulation Model Composability: Basic Concepts to Advance Theory, Methodology, and Technology," *The Modeling and Simulation Information Analysis Center (MSIAC) e-Journal*. Fall 2004, vol 6. no. 1, December 2004.
22. Szczerbicka H. and L. Yilmaz (2004). "M&S Statement: The Mission of the SCS Technical Council on Theory and Methodology," *SCS Modeling & Simulation Magazine* (guest article), vol.2, no.3. pp. 16.

CONFERENCE
ARTICLES

1. Yilmaz L. (2009). "On the Synergy of Conflict and Collective Creativity in Open Innovation Socio-technical Ecologies: Complex Adaptive Systems Perspective," to appear in Proceedings of the *2009 IEEE International Conference on Social Computing (SocialCom'09)*. Vancouver, Canada. August 29-31, 2009.
2. Yilmaz L. and T. I. Ören (2009). "Rethinking M&S using Models of Creative Cognition to Enhance Computational Discovery," to appear in Proceedings of the *Summer Computer Simulation Conference (SCSC'09) of 2009 International Simulation Multiconference*. Istanbul, Turkey, July 13-16, 2009.
3. Ören I. T., L. Yilmaz, M. Kazemifard, and N. G. Aghaee (2009). "Multi-understanding: A Basis for Switchable Understanding for Agents," to appear in Proceedings of the *Summer Computer Simulation Conference (SCSC'09) of 2009 International Simulation Multiconference*. Istanbul, Turkey, July 13-16, 2009.
4. Yilmaz L. and B. Mitchell (2009). "Generative Multisimulation: Decision-Support under Uncertainty using Evolutionary Multimodels," in Proceedings of the *2009 Cargese Interdisciplinary Seminar on Modeling & Simulation of Evolutionary Agents in Virtual Worlds*, Corsica, France, April 20-25, 2009.
5. Yilmaz L. and J. Smith (2008). "Prelude to the Panel on What Makes Good Research in Modeling and Simulation," *ACM/IEEE Winter Simulation Conference*, pp. 671-677. Miami, FL. December 7-10, 2008.
6. Yilmaz L., P. Davis, P. A. Fishwick, X. Hu, J. A. Miller, M. Hybinette, T. I. Ören, P. Reynolds, H. Sarjoughian, and A. Tolk (2008). "What Makes Good Research in Modeling and Simulation:

- Sustaining the Growth and Vitality of the M&S Discipline," *ACM/IEEE Winter Simulation Conference*, pp. 677-688. Miami, FL. December 7-10, 2008.
7. Yilmaz L. (2008). "Autonomic Introspective Simulation Systems: Concepts and Applications," in *Proceedings of the Summer Computer Simulation Conference (SCSC'08) of 2008 International Simulation Multiconference & 2008 Summer Simulation Multiconference*. pp. 1-8. Edinburgh, UK.
 8. Xu J., L. Yilmaz, and J. Zhang (2008). "Agent Simulation of Collaborative Knowledge Processing in Wikipedia," in *Proceedings of the Agent-Directed Simulation Symposium* of the SpringSim Multiconference. pp. 19-25. April 14-17. Ottawa, Canada.
 9. Yilmaz L. (2008). "Innovation Systems are Self-organizing Complex Adaptive Systems," In *Proceedings of the Creative Intelligent Systems Workshop of the AAAI Spring Symposium (SS-08-03)*, pp. 142-148. AAAI Press. Stanford University, California.
 10. Yilmaz L. (2007). "Exploring the Impact of Employee Turnover on the Effectiveness of Software Development Team Archetypes," in *Proceedings of the Agent-Directed Simulation Symposium* of the Spring Simulation Multiconference (SMC'07), pp. 94-101. Norfolk, VA, March 2007.
 11. Ören, T.I., G-A. Nasser, and L. Yilmaz (2007). "An Ontology-Based Dictionary of Understanding as a Basis for Software Agents with Understanding Abilities," in *Proceedings of the Agent-Directed Simulation Symposium* of the Spring Simulation Multiconference (SMC'07), pp. 19-27. Norfolk, VA, March 2007.
 12. Yilmaz L. and T. I. Ören (2007). "On Multiresolution Simulation Modeling of Team and Human Behavior for Software Process Design," in *Proceedings of the Tenth World Congress On Integrated Design & Process Technology*, pp. 210-219, Antalya, Turkey, June 3-8, 2007.
 13. Yilmaz L. (2007) "Simulation Modeling of Software Processes as Human-centered Adaptive Work Systems," in *Proceedings of the European Software Process Improvement and Innovation Conference (EuroSPI2 2007)*, LNCS 4764, pp. 148-159, 26-28 September 2007, Potsdam, Germany.
 14. Yilmaz L (2007). "Using Meta-level Ontology Relations to Measure Conceptual Alignment and Interoperability of Simulation Models," in *Proceedings of the 2007 ACM/IEEE Winter Simulation Conference*, pp. 1090-1099. Washington D.C.
 15. Yilmaz L., Lim A., Bowen S., and Ören I. T. (2007). "Requirements and Design Principles for Multisimulation with Multiresolution, Multistage Models," in *Proceedings of the 2007 ACM/IEEE Winter Simulation Conference*, pp. 823-832. Washington D.C.
 16. Yilmaz L. and T. I. Ören (2007). "Agent-directed Simulation Systems Engineering," in *Proceedings of 2007 Summer Computer Simulation Conference*, pp. 897-904. San Diego, CA, July 14-19, 2007.
 17. Yilmaz L. and J. Phillips (2006). "Organization-theoretic Perspective for Simulation Modeling of Agile Software Processes," In *Proceedings of the SPW/ProSim2006 Workshop*, LNCS, Springer-Verlag, Vol. 3966, pp. 234-241, Shanghai, China.
 18. Yilmaz L. (2006). "On Improving Dynamic Composability via Ontology-driven Introspective Agent Architectures," In *Proceedings of the 10th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2006*, Vol 4, pp. 112-117, Orlando, Florida.
 19. Saple A. and L. Yilmaz (2006). "Agent-based Simulation Study of Behavioral Anticipation: Anticipatory Fault Management in Computer Networks," In *Proceedings of the 44th ACM South East Conference*, pp. 383-388, Melbourne, Florida.
 20. Ustun V., L. Yilmaz, and J. S. Smith (2006). "A Conceptual Model for Agent-based Simulation of Physical Security Systems," In *Proceedings of the 44th ACM South East Conference*, pp. 365-370, Melbourne, Florida.

21. Phillips J. and L. Yilmaz (2006). "An Agent-based Simulation Study of Cooperative Team Behavior in Software Development with Rational Unified Process," In *Proceedings of the Agent-Directed Simulation Symposium of the Spring Simulation Multiconference (SMC'06)*, pp.73-80, Huntsville, AL, April 2006.
22. Saple A., L. Yilmaz, T.I. Ören (2006). "On the Performance of Reactive and Anticipatory Fault Management Agents in Adaptive Networks," In *Proceedings of the 2006 Summer Computer Simulation Conference*, pp. 11-18. July 29-August 2, 2006, Calgary, Canada.
23. Ören T.I. and L. Yilmaz (2006). "Synergy of Systems Engineering and Modeling and Simulation," *2006 SCS International Conference on Modeling and Simulation - Methodology, Tools, Software Applications (M&S-MTSA'06)*, pp. 10-17. July 29-August 2, 2006, Calgary, Canada.
24. Yilmaz L. and A. Tolc (2006). "Engineering Ab Initio Dynamic Interoperability and Composability via Agent-mediated Introspective Meta-simulation," In *Proceedings of the 2006 ACM/IEEE Winter Simulation Conference*, pp. 1075-1082, Monterey, CA. December 3-6 2006.
25. Seck, M., C. Frydman, N. Giambiasi, T.I. ren, and L. Yilmaz (2005). "Use of a Dynamic Personality Filter in Discrete Event Simulation of Human Behavior under Stress and Fatigue," In *Proceedings of the 1st International Conference on Augmented Cognition*, July 22-27, 2005, Las Vegas, Nevada.
26. Yilmaz, L. and T.I. Ören (2005). Discrete-Event Multimodels and their Agent-Supported Activation and Update. In *Proceedings of the Agent-Directed Simulation Symposium of the Spring Simulation Multiconference (SMC'05)*, San Diego, CA, April 2005, pp. 63-70.
27. Ören, T.I. and L. Yilmaz (2005). "Quality Principles for the Ergonomics of Human-Computer Interfaces of Modeling and Simulation Software, In *Proceedings of SIMCHI'05 - 2005 International Conference on Human-Computer Interface Advances for Modeling and Simulation*," January 23 - 25, 2005, New Orleans, Louisiana, pp. 5-11.
28. Yilmaz L. (2005). "On the Potential of DEVS in Teaching Engineering of Quality into Simulation Models," *2005 International Conference on Simulation in Education (ICSiE'05)*, pp. 89-94.
29. Yilmaz, L. and Ören, T.I. (2004). "Dynamic Model Updating in Simulation with Multimodels: A Taxonomy and a Generic Agent-Based Architecture," In *Proceedings of SCSC 2004 - Summer Computer Simulation Conference*, July 25-29, 2004, San Jose, CA., pp. 3-8. (
30. Ören, T.I. and L. Yilmaz (2004). "Behavioral Anticipation in Agent Simulation," In *Proceedings of ACM/IEEE WSC 2004 - Winter Simulation Conference*, Washington, D.C., December 5-8, 2004, pp. 801-806.
31. Yilmaz, L. and Ören, T.I. (2004). "Exploring Agent-Supported Simulation Brokering on the Semantic Web: Foundations for a Dynamic Composability Approach," in *Proceedings of ACM/IEEE WSC 2004 - Winter Simulation Conference*, Washington, D.C., December 5-8, 2004, pp. 766-773.
32. Yilmaz, L. and T. Ören (2004). "A Conceptual Model for Reusable Simulations within a Model-Simulator-Context Framework," *CMS 2004 - Conference on Conceptual Modeling and Simulation, Part of the I3M - International Mediterranean Modeling Multiconference*, pp. 235-241. October 28-31, 2004, Genoa, Italy.
33. Yilmaz L. and S. Edwards (2004). "On the Analysis and Detection of Collaborative Behavior Conflicts within the DEVS Formalism," In the *Proceedings of the 2004 UK Simulation Workshop*, pp. 19-26. University of Birmingham, UK, March 23-24.
34. Yilmaz L. and J. A. Hamilton (2004). "Modular Compositional Analysis of Protocol Conflicts for Network Interoperability". In *Proceedings of the Design, Analysis, and Simulation of Distributed Systems 2004 (DASD'04)*, pp. 149-155. April 18-22.

35. Yilmaz L. (2004). "Integrating Model-Based Verification into Software Design Education," In *Proceedings of the American Society for Engineering Education Annual Conference*, April 4-6.
36. Yilmaz L. (2003). "Towards a Metric Suite for Discrete-Event Trace Validity," In *Proceedings of the 2003 Summer Computer Simulation Conference*, July 13, 17 1997. The Society for Computer Simulation International, San Diego, California.
37. Yilmaz L, De La Cruz J., Nguyen T, and T. Kohler (2002). "Building Ontologies using DAML+OIL for Semantic Interoperability," *Interservice/Industry Training, Simulation & Education Conference (I/ITSEC'02)*, December 2002, Orlando, Florida.
38. Yilmaz L. (2001). "Automated Object-flow Testing of Dynamic Process Interaction Models," In *Proceedings of the 2001 ACM/IEEE Winter Simulation Conference*, pp. 586-594. December 2001.
39. Hamilton A. J. and L. Yilmaz (2004). "Modeling Bilateral Interoperability Through Command and Control Architecture," In *Proceedings of the Military, Government, and Aerospace Simulation (MGA'04) at ASTC'04 Multiconference*. pp. 15-19.
40. Yilmaz L. and Stephen H. Edwards (2002). "Specifying and verifying collaborative behavior in component-based systems," In *Proceedings of the RESOLVE Workshop 2002*. Technical Report TR-02-11, Dept. of Computer Science, Virginia Tech, Blacksburg, VA, pp. 95-104.
41. MacKenzie G., Schulmeyer G., and L.Yilmaz (2002). "Verification Technology Potential with Different Modeling and Simulation Development and Implementation Paradigms", In *Proceedings of the Foundations for V&V in the 21st Century Workshop (Foundations '02)* The Johns Hopkins University Applied Physics Laboratory Laurel, Maryland, October 22-24, 2002.
42. Yilmaz, L. and Ören, T.I. (2004). Towards Simulation-based, Problem-solving Environments for Conflict Management in Computational Social Science, *Proceedings of Agent 2003 - The Agent 2003 Conference on Challenges in Social Simulation*, Chicago, Illinois, October, 2-4, 2003, pp. 25-37.
43. Yilmaz L. (1998). "Verification and Validation Guidelines for Object-Oriented Simulation Models", In *Proceedings of the 1998 Summer Computer Simulation Conference*, pp. 645-656. July 19, 22 1998. The Society for Computer Simulation International, Reno Nevada.
44. Yilmaz L. and O. Balci (1997). "Object-Oriented Simulation Model Verification and Validation", In *Proceedings of the 1997 Summer Computer Simulation Conference*, July 13, 17 1997. The Society for Computer Simulation International, San Diego, California.

INVITED TALKS

1. Yilmaz L. (2009) "Using Agent-Directed Simulation to Accelerate Unraveling the Complexities of Adaptive Biological Systems," American Association of Pharmaceutical Scientists (AAPS) Annual Meeting. November 8-12, 2009, Los Angeles, CA.
2. Yilmaz L. (2007) (Invited member and session chair for the "Determining a Validation Methodology for Agent-Based Simulation Workshop" at Northrop Grumman, Fair Lakes, 12900 Federal Systems Park Drive, Fairfax, Virginia, 22033. (May 1-2, 2007).
3. Yilmaz L. (2005) Agent-Directed Simulation: A Framework for Expanding Our Horizons in Teaching the Use of Agents in M&S at Virginia Modeling, Analysis, and Simulation Center (VMASC). June 20-24, 2005. <http://www.vmasc.odu.edu/speakers/lyilmaz.php>
4. Yilmaz L., David Britton, and John Reber (2004). "OneSAF Model Marketplaces on the Semantic Grid," presented on August 3, 2004 to Defense Modeling and Simulation Office (DMSO).
5. Yilmaz L. (2004). "MultiSimulation with Contingency Models: Agent-Supported Simulation Brokering and Updating on the Semantic GRID," presented on August 3, 2004 to DMSO.

6. Yilmaz L. (2004). Invited to participate in the Johns Hopkins University Applied Physics Laboratory (JHU/APL) two-day workshop on Model Composability for the Defense Modeling and Simulation Office (DMSO) - "Engineering Composability into Simulation Models through the Separation of Concept, Content, and Context", September 28-29, 2004.
7. Yilmaz L. (2003). "Toward a DEVS-Based Modeling Theory for Predictable Complex System Designs," NSF Workshop on Modeling and Simulation for Design of Large Software-Intensive Systems: Challenges and New Research Directions (DLS03) [Dec 3-4, 2003]

PROFESSIONAL
ACTIVITIES

1. Editor-in-Chief of the Simulation: Transactions of the Society for Modeling and Simulation International (2008-present)
2. Editorial Board Member of the International Journal of Simulation and Process Modeling (2004-present).
3. Editorial Board Member of the Simulation & Gaming Journal (2008-present).
4. Editorial Board Member of the International Journal of Engineering Education (2006-present).
5. Member of the Board-of-Directors of the Society for Modeling and Simulation International for the 2006-2008 biennium.
6. Advisory Board Member of the International Modeling & Simulation Body of Knowledge Initiative.
7. Secretary of the Society for Modeling and Simulation International (SCS) (2004-2006).
8. Advisor to Workforce Development Committee of the Alabama Modeling and Simulation Council (<http://www.amsc.to>). (2006- present).
9. Founding organizer and General co-chair of the Agent-Directed Simulation Symposium of the 2010 Spring Simulation Multiconference, Orlando, Florida, April 2010.
10. General Chair (with O. Balci, X. Hu, and M. Sierhuis), 2009 Summer Computer Simulation Conference, July 13-16, 2009. Istanbul, Turkey.
11. Program Co-chair and Organizer (with Gabriel Wainer, Andreas Tolk, and Hamid Vakildian), 2007 Summer Computer Simulation Conference, July 15-18, 2007, San Diego, CA, USA.
12. Guest Editor (with Y. Zhang, T. Ören, M Sierhuis, G, Madey) Special Issue on Agent-Directed Simulation, The International Journal of Intelligent Control and Systems.
13. Guest Editor (with Stephen Edwards) of the Special Issue on Trends in Software Engineering Education for the International Journal of Engineering Education.
14. Organizer and Chair (with J. Smith) of the Panel on What Makes Good Research in Modeling and Simulation. ACM/IEEE Winter Simulation Conference. Miami, FL. December 7-10, 2008.
15. Organizer and General Chair of the 2005 Agent-Directed Simulation Symposium of the Spring Simulation Multiconference (SpringSim'05), San Diego, CA, USA. April 2005.
16. Organizer and Program Co-Chair (with Tuncer Ören, Gregory Madey), Agent-Directed Simulation Symposium (2006) of the Spring Simulation Multiconference (SpringSim'06), Huntsville, AL, USA. April 2006.
17. Organizer and Program Co-Chair (with Tuncer Ören, Gregory Madey, and Maarten Sierhuis), Agent-Directed Simulation Symposium (2007) of the Spring Simulation Multiconference (SpringSim'07).
18. Organizer and Program Co-Chair (with Tuncer Ören, Gregory Madey, and Maarten Sierhuis), Agent-Directed Simulation Symposium (2008) of the Spring Simulation Multiconference (SpringSim'08).

19. Organizer and Program Co-Chair (with Tuncer Ören, Gregory Madey, and Maarten Sierhuis), Agent-Directed Simulation Symposium (2009) of the Spring Simulation Multiconference (SpringSim'09).
20. Publications Chair, The 46th ACM Southeast Conference, March 28-29, 2008. Auburn, AL.
21. Guest Editor (with Tuncer Oren) Agent-Directed Simulation, Special Issue of the Transactions of the Society for Computer Simulation International. Vol. 81, No. 7 (July 2005).
22. Guest Editor (with Tuncer Ören and Precha Thavikulwat) for the Simulation and Gaming Journal Special Issue on Intelligent Agents, Artificial Intelligence and Simulation Gaming.
23. Co-organizer of the I/ITSEC 2005 SCS Panel on Artificial Intelligence, Intelligent Agents and Game Technology.
24. Member of the Events Committee, Alabama Modeling and Simulation Council. (2004-2005).
25. Associate Chair (2003-2004) of the Theory and Methodology Council of the Society for Modeling and Simulation International(SCS).
26. SCS representative (liaison) to I/ITSEC Conference Series. (2006)
27. Organizer and Track Co-Chair (with Bernard Espinasse), Multiagent Modeling and Simulation Track of Sessions in Conceptual Modeling and Simulation Conference - CMS 2007, Part of the International Mediterranean Modeling Multiconference.
28. Organizer and Track Co-Chair (with Tuncer Ören), Human Behavior and Performance Simulation Track of Sessions in Conceptual Modeling and Simulation Conference - CMS 2005 Marseilles, France, October 20-22, 2005 Part of the International Mediterranean Modeling Multiconference.
29. Organizer and Track Co-Chair (with Tuncer Ören), Agent-Directed Simulation. Track of Sessions in 20th European Modeling and Simulation Symposium, September 17-19, 2008, Briatico, Italy
30. Organizer and Track Co-Chair, SCSC'04, SCSC'05, SCSC'06, SCSC'07, SCSC'08 Agent-Directed Simulation (with Tuncer Oren), July 2004, 2005, 2006, 2007, June 2008.
31. Invited Member of the International Program Committees of
 - 4th Engineering Semantic Agent Systems (ESAS) Workshop
 - 21st European Modeling and Simulation Symposium, Puerto de la Cruz (Tenerife - Canary Islands)
 - 13th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2009
 - IASTED International Conference on Modelling, Simulation and Identification (MSI 2009), Beijing, China
 - DEVS and High Performance Computing Symposium, Spring Simulation Multiconference, San Diego, CA.
 - Creative Intelligent Systems Workshop (CIS 2008) of AAAI 2008 Spring Symposia. Palo Alto, CA
 - The 12th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2008
 - The 3rd IEEE International Workshop on Engineering Semantic Agent Systems (ESAS 2008).
 - UK Operational Research Society 4th Simulation Workshop (SW'08).
 - The 2007 International Conference on Modeling, Simulation and Visualization Methods (MSV'07) of the 2007 World Congress in Computer Science, Computer Engineering, and Applied Computing WORLDCOMP'07.
 - The World Multi-Conference on Systemics, Cybernetics, and Informatics, (WMSCI 2007), WMSCI 2008.

- The 2nd IEEE International Workshop on Engineering Semantic Agent Systems (ESAS 2007).
 - Workshop on Extending Computational Cognitive Modeling to Issues of Multi-Agent Interaction (ECMMAI 2007) [in conjunction with ICAI'07].
 - The First International Workshop on Pattern Languages: Addressing Challenges (PLAC 2007) (in conjunction with OOPSLA 2007), Montreal, Canada, October 21-22, 2007.
 - The IASTED Asian Conference on Modeling and Simulation (ASIAMS 2007), October 8-10, 2007. Beijing, China.
 - The International Conference on Modeling and Simulation (Emerging Methods towards Frontier Technologies), CITICOMS 2007, 27-29 August 2007, Coimbatore, India.
 - Conceptual Modeling and Simulation Conference - CMS 2005 Marseilles, France, October 20-22, 2005 Part of the International Mediterranean Modeling Multiconference.
 - AIS-CMS 2007: AI, Simulation and Planning in High Autonomy Systems (AIS) Conceptual Modeling and Simulation (CMS) - CMS 2007, Part of the International Mediterranean Modeling Multiconference.
 - DEVS Integrative M&S Symposium (DEVS'06).
 - Summer Computer Simulation Conference Series (SCSC'04, 05, 06)
 - International Software Engineering Conference on Software Engineering in Industrial Applications (ISEC'04).
 - IADIS International Conference on e-Society (IADIS'04, 05, 06).
 - The IASTED International Conference on Modelling, Simulation, and Optimization (2005, 2006).
 - The 2006 International Conference on Modeling, Simulation and Visualization Methods (MSV'06) of the 2006 World Congress in Computer Science, Computer Engineering, and Applied Computing WORLDCOMP'06.
32. Panel member. "Education and Training for the M&S Profession" at the International Conference on Simulation in Education (ICSiE) to be held in New Orleans, January 23-27, 2005 as part of the Western Simulation Multiconference (WMC).
 33. Co-Chair (with Dale Pace) and Panelist. SCSC'03 VV&A Process Improvement, Montreal, Canada, July 2003.
 34. Exhibits Chair, Advanced Simulation Technologies Conference (ASTC'04), Arlington, VA, April 2004.
 35. Reviewer for
 - National Science Foundation (NSF) - Reviewer and Panelist
 - IEEE Transactions on Systems, Man & Cybernetics
 - ACM Transactions on Modeling and Simulation
 - Computational and Mathematical Organization Theory
 - Journal of Defense Modeling and Simulation
 - International Journal of Engineering Education
 - IEEE Transactions on Industrial Informatics
 - International Journal of Computers and Applications
 - International Journal of Simulation and Process Modelling
 - Simulation: Transactions of the SCS International
 - International Journal of Simulation. Systems, Science & Technology
 - IEEE Transactions on Industrial Informatics
 - Intelligent Decision Technologies Journal