

Dr. Saurabh Mittal

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Education

- Ph.D.**, 2007. Electrical and Computer Engineering, University of Arizona, Tucson
 - Minor 1: Systems and Industrial Engineering
 - Minor 2: Management Information Systems
 - Concentration in Systems Modeling & Simulation, executable architectures, DoDAF, and netcentric system of systems engineering
- M.S.**, 2003. Electrical and Computer Engineering, University of Arizona, Tucson
 - Concentration in computer networks, and modeling and simulation theory and application
- B.Tech.**, 2001. Electrical Engineering, Jamia Millia Islamia, India
- IBM**, 2000, Certified Application Developer

Employment History

- 09/2015 – Present: Lead Systems Engineer/Scientist, MITRE Corp, McLean, VA
- 07/2014 – Present: Founder and President, Dunip Technologies, LLC, VA
- 07/2014 – 09/2015: Scientist IV and Architect, National Renewable Energy Lab, Dept. of Energy, Golden CO
- 08/2010 – 06/2014: Research Scientist, L-3 Communications, Air Force Research Lab, WPAFB, OH
- 05/2010 – 08/2010: Applications Systems Engineer V, Comsys LLC (client: Wells Fargo Co.), Tempe, AZ
- 08/2008 – 07/2014: Founder and President, Dunip Technologies, Tempe, AZ
- 12/2008 – 05/2010: Software Engineer, Apollo Group Inc., Phoenix, AZ
- 10/2007 – 05/2008: Research Asst. Professor, ECE Dept., University of Arizona, Tucson, AZ
- 06/2005 – 10/2007: Research Engineer III, NGIT at ACIMS, University of Arizona, Tucson, AZ
- 09/2004 – 06/2005: Research Intern, Northrop Grumman Info. Tech, ACIMS Lab, Univ. of Arizona, Tucson
- 08/2001 – 06/2005: Research Assistant, ACIMS Lab, ECE Dept., University of Arizona, Tucson, AZ

Professional Honors

- 2017 Outstanding Professional Contribution Award from Society of Modeling and Simulation (SCS) International (www.scs.org)
- 2016 Outstanding Service Award from SCS
- 2015 Best Paper award for Summer Simulation Multi-conference, Chicago, IL
- 2008-09 Classified by US Citizenship and Immigration Services as EB1-Extraordinary Ability (EA) and in US National Interest Waiver (NIW)
- 2006 Golden Eagle Award – Joint Interoperability Test Command, US DoD
- 2006 Best M&S Development in Cross-functional area (Team) - National Training Simulation Association
- 2006 Outstanding Research Assistant/Staff – Nominee (8000/36000) graduate students, Univ. Of Arizona
- 2004 Herculean Effort Leadership Award – University of Arizona
- 2001-05 Graduate Research Assistant Scholarship/Fellowship, ECE Department, Univ. of Arizona

Non-Profit Boards

- 2017 – present: *Director-at-Large, Member of Board of Directors*, SCS
- 2016 – present: *Vice President – Memberships*, SCS
- 2016 – present: *Associate Editor-in-Chief*, Transactions of SCS, SIMULATION
- 2015 – present: *Editor-in-Chief*, Enterprise Architecture Body of Knowledge (www.eabok.org)

Tenure Selection Committee

2015 External reviewer for Layola University, MD, USA

External Technical Committee Memberships

- 2018: *Awards Chair*: Spring Simulation Multi-Conference (SpringSim'18), Baltimore, MD
2017: *General Chair*: Spring Simulation Multi-Conference (SpringSim'17), Arlington, VA
General Chair: Symposium on M&S of Complexity in Intelligent, Adaptive and Autonomous Systems, SpringSim'17, SummerSim'17, WinterSim'17
Steering Committee: Summer Simulation Multi-Conference 2017
2016: *Awards Chair*: Summer Simulation Multi-Conference (SummerSim'16), Montreal, CA
Vice General Chair: Spring Simulation Multi-Conference (SpringSim'16), Huntington Beach, CA
General Chair: Symposium on M&S of Complexity in Intelligent, Adaptive and Autonomous Systems, SpringSim'16
General Chair: Track on M&S of Intelligent, Adaptive and Autonomous Systems, Summer Computer Simulation Conference, SummerSim'16, Montreal, Canada
Track Co-Chair: Workshop on Model Engineering for System of Systems, European Modeling and Simulation Symposium, Cyprus
Track Co-Chair: Model Engineering for System of Systems, Autumn Simulation Conference, AsiaSim, Beijing, China
2015: *General Chair*: Summer Simulation Multi-conference (SummerSim'15), Chicago, IL
General Chair: Summer Computer Simulation Conference (SCSC'15), Chicago, IL
General Chair: Workshop on Computational Challenges in Energy Systems Integration and Grid Modernization, National Renewable Energy Lab, Department of Energy, Golden, CO
Program Chair: Spring Simulation Multi-conference, (SpringSim'15) Alexandria, VA
Track Chair: M&S for Intelligent, Adaptive and Autonomous Systems, SCSC'15, Chicago, IL
Track Co-Chair: M&S in Energy Systems Integration and Smart Grid, SCSC'15, Chicago, IL
Track Co-Chair: Model Engineering, European Modeling and Simulation Symposium, Italy
2014: *General Co-Chair*: Summer Simulation Multi-conference (SummerSim'14), Monterey, CA
General Co-Chair: Summer Computer Simulation Conference, (SCSC'14), Monterey, CA
Track Chair: M&S for Intelligent, Adaptive and Autonomous Systems, SCSC'14, Monterey, CA
Track Chair: Methodology, Theory of Modeling and Simulation/DEVS Symposium, SpringSim'14
Track Co-Chair: Model Engineering, European Modeling and Simulation Symposium, France
2013: *Track Co-Chair*: M&S Software, DEVS Spring Simulation Conference
Session Chair: Modeling Methodology, Winter Simulation Conference
2010: *Track Co-Chair*: Executable Architecture, Summer Computer Simulation Conference
2007: *Session Chair*: DEVS Collaborative Execution over SOA, DEVS Integrative Symposium, SpringSim'07
2005: *Session Chair*: IEEE International Conference on Systems, Man and Cybernetics, Hawaii

International Program Committee

- 2007 – 2018: Summer Computer Simulation Conference
2006 – 2018: Spring Simulation Multiconference
2014 – 2018: European Modeling and Simulation Symposium
2015 – 2018: IEEE System of Systems Conference
2007, 2013 – 2018: Winter Simulation Conference
2014 – 2016: SCS Conference Committee overseeing all SCS conferences
2015 – 2016: ACM SIGSIM Parallel and Distributed Simulation (PADS) Conference
2015 – 2016: SIMULTECH
2015 – 2106: SIMUL
2015: IEEE System of Systems Conference
2012: IEEE Workshop on Modeling and Simulation on Grid and Cloud Computing

2008 – 2009: Parallel Architectures and Bioinspired Algorithms
2008: European Conference on Modeling and Simulation, ECMS

Review Service

Journal: IEEE Systems

Journal: IEEE Software

Journal: IEEE Transactions on Systems, Man and Cybernetics-Part C: Applications and Reviews

Journal: The International C2 Journal (Command and Control Research Program: CCRP)

Journal: Cognitive Systems Research (Elsevier)

Journal: Journal of Defense Modeling and Simulation

Journal: International Journal of Modeling and Simulation (ActaPress)

Journal: Simulation Modeling Practice and Theory (Elsevier)

Journal: ACM Transaction on Modeling and Computer Simulation

Journal: Electronics and Telecommunications Research Institute (ETRI), South Korea

Journal: Intelligent Automation and Soft Computing

Magazine: IEEE Systems, Man and Cybernetics

4th Annual IEEE Conference on Automation Science and Engineering (CASE), Washington DC, USA

SIMUTools 2008, France

Professional Society or Association Memberships

Society of Computer Simulation (SCS)

Association for Computing Machinery (ACM)

Institution of Electronics and Electrical Engineers (IEEE)

Market Advisory Board: Business Week Magazine (2007-2009)

Other Technical Interests

- Areas of Expertise
 - Software design, agent modeling, multi-agents systems, test and analysis for distributed system of systems
 - Multi-paradigm platform independent systems/software engineering using domain specific languages
 - Executable enterprise architectures for netcentric systems including frameworks like DoDAF 2.0
 - Interoperability and cross-platform software engineering & Modeling-Simulation software w/o SOA w/o real-time execution in environment like Live, Virtual and Constructive (LVC) or hardware-in-the-loop
 - Unified process for integrated development and testing of Systems of systems
- Research Interests
 - Model-driven System of systems engineering and executable architectures
 - Complex adaptive systems, cyber complex systems and netcentric multi-agent sociotechnical systems
 - Emergent engineering in System of systems, Complexity Science in Intelligent Systems

Teaching Experience

Electrical and Computer Engineering, University of Arizona

Spring 2008 Research Asst. Prof. Distributed Simulation (ECE 676)

Fall 2007 Research Asst. Prof. Object Oriented Modeling and Discrete Event Simulation (ECE 575)

Spring 2005 Teaching Assistant Software Engineering Concepts (ECE 473/573)

Fall 2003 Teaching Assistant Object Oriented Modeling and Discrete Event Simulation (ECE 575)

Intellectual Property

Patent: Damodaran, S. and Mittal, S., Methods and System for Evaluating Effects of Cyber Attacks on Cyber-physical Systems (filed 05/17), held jointly by MITRE

Publications (Google Citations: 1233+)

Books (2)

Mittal, S., Durak, U., Oren, T., (2017) *Guide to Simulation-based Disciplines: Advancing Our Computational Future*, 367 pg., Springer, UK. ISBN 978-3-319-61264-5

Mittal, S., Martin, J.L.R. (2013), *Netcentric System of Systems Engineering with DEVS Unified Process*, 712 pg., CRC Press, Boca Raton, FL, USA, ISBN: 9781439827062

Special Issues (2)

Diallo, S., Durak, U., Mustafee, N. **Mittal, S.**, eds. (2016) *Modeling and Simulation in the era of Big Data and Cloud Computing: Theory, Methodology and Tools*, Special Issue in Transactions of SCS

Zhang, L, Zeigler, B.P., **Mittal, S.**, (eds.) (2016) *Model Engineering*, Special Issue in International Journal of Modeling, Simulation and Scientific Computing, World Scientific

Invited Talks (2)

Mittal, S., (2014) Attention-Focusing in Activity-based Intelligent Systems, Activity-based Modeling and Simulation, Zurich, Switzerland

Mittal, S., (2010) Net-centric Cognitive Architecture using DEVS Unified Process, Researching and Developing Persistent and Generative Cognitive Models Workshop, sponsored by US Air Force Research Lab, 711th Human Performance Wing and European Office of Aerospace Research and Development, Nov 9-11, Scottsdale, AZ, USA

Panelist (1)

Brown, B., **Mittal, S.**, Tolk, A., Arafat, S. (2015), Building the Virtual Product with Big Models, Panel on M&S for Intelligent, Adaptive and Autonomous System, Summer Computer Simulation Conference, Chicago, IL

Proceedings (4)

Mittal, S., Martin, J.L.R., (eds.) (2017) *Proceedings of Symposium on Modeling and Simulation of Complexity in Intelligent, Adaptive and Autonomous Systems*, Spring Simulation Multi-conference

Mittal, S., Martin, J.L.R., Cetinkaya, D., Zapater, M., (2016) Proceedings of Symposium on Complexity in Intelligent, Adaptive and Autonomous Systems, Society of Computer Simulation International

Mittal, S., Martin, J.L.R., (eds.) (2016) *Proceedings of Symposium on Modeling and Simulation of Complexity in Intelligent, Adaptive and Autonomous Systems*, Spring Simulation Multi-conference

Mittal, S., DeRango, F., (eds.) (2015) *Proceedings of Summer Computer Simulation Conference*, Society of Computer Simulation International

Zander, J., **Mittal, S.**, (eds.) (2014) *Proceedings of Summer Computer Simulation Conference*, Society of Computer Simulation International

Book Reviews (1)

Mittal, S., (2013) Book review in SCS Newsletter: *Guide to Modeling and Simulation of System of Systems (Simulation, Foundations, Methods and Applications)* by B.P. Zeigler, H. Sarjoughian, R. Duboz, J.C. Soulie, Springer 2012, 393 pages, available at: <http://scs.org/newsletters/2013-09/newsletter.pdf>

Book Chapters (13)

Oren, T., Turnista, C., **Mittal, S.**, Diallo, S., (2017) The Evolution of Simulation and its contribution to many disciplines, in **S. Mittal**, U. Durak and T. Oren (eds.), *Guide to Simulation-based Disciplines: Advancing our computational future*, Springer UK

Mittal, S., Martin, J.L.R., (2017) Simulation-based Complex Adaptive Systems, in **S. Mittal**, U. Durak and T. Oren (eds.), *Guide to Simulation-based Disciplines: Advancing our computational future*, Springer UK

- Oren, T., **Mittal, S.**, Durak, U., (2017) The Evolution of Simulation and its contribution to many disciplines, in **S. Mittal**, U. Durak and T. Oren (eds.) *Guide to Simulation-based Disciplines: Advancing our computational future*, Springer UK
- Mittal, S.**, Zeigler, B.P., (2017) Theory and Unified Process for the Practice of M&S in Cyber Environments, in A. Tolc and T. Oren (eds.), *The Profession of Modeling and Simulation*, John Wiley & Sons.
- Mittal, S.**, Doyle, M.J., Portrey, A.M., (2014) Human-in-the-loop modeling in System of Systems M&S: Applications to Live, Virtual and Constructive (LVC) Distributed Mission Operations (DMO), In A. Tolc, L. Rainey (eds). *Handbook on M&S Support for System of Systems Engineering*, John Wiley & Sons
- Mittal, S.**, (2013) Netcentric Complex Adaptive Systems, in **S. Mittal** and J.L.R Martin, *Netcentric System of Systems Engineering with DEVS Unified Process*, CRC Press, Boca Raton, FL
- Douglass, S.A., **Mittal, S.** (2012), A framework for modeling and simulation of the artificial, In *Ontology, Epistemology, and Teleology of Modeling and Simulation*, Ed. A. Tolc, Springer-Verlag, Berlin
- Mittal, S.** (2011), Agile net-centric systems with DEVS unified process, In A. Tolc, L. Jain (eds.), *Intelligence-based Systems Engineering*, Springer-Verlag Berlin
- Wainer, G., Zoubi, K., Dalle, O., Hill, D., **Mittal, S.**, Martin, J.L.R., Sarjoughian, H., Touraille, L., Traore, M., Zeigler, B.P. (2010), Standardizing DEVS simulation middleware, In G. Wainer, P. Mosterman (eds.) *Discrete Event Modeling and Simulation: Theory and Applications*, CRC Press
- Wainer, G., Zoubi, K., Dalle, O., Hill, D., **Mittal, S.**, Martin, J.L.R., Sarjoughian, H., Touraille, L., Traore, M., Zeigler, B.P. (2010), Standardizing DEVS model representation, In G. Wainer, P. Mosterman (eds.) *Discrete Event Modeling and Simulation: Theory and Applications*, CRC Press
- Wainer, G., Zoubi, K., **Mittal, S.**, Martin, J.L.R., Sarjoughian, Zeigler, B.P (2010), An introduction to DEVS Standardization, In G. Wainer, P. Mosterman (eds). *Discrete Event Modeling and Simulation: Theory and Applications*, CRC Press
- Wainer, G., Zoubi, K., Dalle, O., Hill, D., **Mittal, S.**, Martin, J.L.R., Sarjoughian, H., Touraille, L., Traore, M., Zeigler, B.P. (2010), DEVS Standardization: Ideas, trends and future, , In G. Wainer, P. Mosterman (eds). *Discrete Event Modeling and Simulation: Theory and Applications*, CRC Press
- Mittal, S.**, Zeigler, B.P., Martin, J.L.R., Sahin, F., Jamshidi, M. (2008), Modeling and simulation for systems of systems engineering, In M. Jamshidi (ed.) *System of Systems Engineering for 21st Century*, Wiley

Journal Articles (10)

- Martin, J.L.R, **Mittal, S.**, Fabero, J.C., Correa, R.H. (2016), Reconsidering Performance of DEVS Simulation Environments using the DEVSSStone Benchmark, Transactions of SCS: SIMULATION, 93(7)
- Mittal, S.**, Zeigler, B.P., (2014), Context and attention in activity-based intelligent systems, Proceedings of Activity-based Modeling and Simulation (ACTIMS'14), ITM Web of Conferences (3), DOI: <http://dx.doi.org/10.1051/itmconf/20140303001>, invited
- Mittal, S.** (2013), Emergence in Stigmergic and Complex Adaptive Systems: A Formal Discrete Event Systems Perspective, *Cognitive Systems Research*, 21, 22-39, DOI: 10.1016/j.cogsys.2012.06.003
- Mittal, S.**, Zeigler, B.P., Martin, J.L.R. (2010), Implementation of formal standard for Interoperability in M&S/System of systems integration with DEVS/SOA, *International Command and Control Journal*, 3(1)
- Mak, E., **Mittal, S.**, Hwang. M.H., Nutaro, J. (2010), Automated Link-16 testing using the discrete event system specification and extensible markup language, *Journal of Defense Modeling and Simulation*, 7(1), 39-62
- Martin, J.L.R., **Mittal, S.**, Mendel, J., Zeigler, B.P. (2009), eUDEVS: Executable UML using DEVS theory of modeling and simulation, *Transactions of SCS*, 85(7), 750-777
- Mittal, S.**, Martin, J.L.R., Zeigler, B.P. (2009), DEVS/SOA: A cross-platform framework for net-centric modeling and simulation in DEVS unified process, *Transactions of SCS*, 85(7), 419-450 (**Top 5 in last 5 years in SIMULATION**)
- Mittal, S.**, Mak, E., Nutaro, J. (2006), DEVS-based dynamic model reconfiguration and simulation control in the enhanced DoDAF design process, *Journal of Defense Modeling and Simulation*, 3(4), 239-267
- Mittal, S.** (2006), Extending DoDAF to allow DEVS-based Modeling and Simulation, *Journal of Defense Modeling and Simulation*, 3(2), 95-123
- Hu, X., Zeigler, B.P., **Mittal, S.** (2005), Variable structure in DEVS component-based modeling and simulation, *Transactions of SCS*, 81(2), 91-102 (**Top 5 most cited in SIMULATION**)

Conference/Workshop Papers (30)

- Pagan, J., Moya, J.M., **Mittal, S.**, Ayala, J.L., (2017) Advanced Migraine Prediction Simulation System, Summer Computer Simulation Conference, Seattle, WA
- Damodaran, S., **Mittal, S.** (2017) Controlled Environments for Cyber Risk Assessment of Cyber-Physical Systems, Summer Simulation Multi-conference, Seattle, WA
- Damodaran, S., **Mittal, S.** (2017) Modeling Cyber Effects in Cyber-Physical Systems with DEVS, Symposium on Theory of Modeling and Simulation/DEVS, Spring Simulation Multi-conference, Virginia Beach, VA
- Mittal, S.**, Martin, J.L.R. (2017) DEVSML 3.0 Stack: Rapid Deployment of DEVS Farm in Distributed Cloud Environment using Microservices and Containers, Symposium on Theory of M&S/DEVS, Spring Simulation Multi-conference, Virginia Beach, VA:
- Pratt, A., Ruth, M., Krishnamurthy, D., Sparr, B., Lunacek, M., Jones, W., **Mittal, S.**, Wu, H., Marks, J. (2017) Hardware-in-the-Loop Simulation of a Distribution System with Air Conditioners under Model Predictive Control, IEEE Power Engineering Society General Meeting
- Mittal, S.**, Martin, J.L.R., (2016) DEVSML Studio: A framework for integrating domain-specific languages for discrete and continuous hybrid systems into DEVS-based M&S environment, Proceedings of the Summer Computer Simulation Conference
- Mittal, S.**, Cane, S.A., (2016) Contextualizing Emergence in System of Systems Engineering with gap analysis, Symposium on M&S of Complexity in Intelligent, Adaptive and Autonomous Systems, Spring Simulation Multi-conference, Pasadena, CA
- Martin, J.L.R., **Mittal, S.**, Fabero, J.C., Malagon, P., Ayala, J.L. (2016) Real-time hardware/software co-design using DEVS-based transparent M&S framework, Summer Computer Simulation Conference, Chicago, IL
- Mittal, S.**, Rainey, L.B., (2015) Harnessing emergence: The design and control of emergent behavior in system of systems engineering, Summer Computer Simulation Conference, Chicago (best paper)
- Mittal, S.**, Ruth, M., Pratt, A., Lunacek, M., Krishnamurthy, D., Jones, W., (2015), A System-of-Systems approach for integrated energy systems modeling and simulation, Summer Computer Simulation Conference, Chicago
- Ruth, M., Pratt, A., Lunacek, M., **Mittal, S.**, Wu, H., Jones, W., (2015), Effects of Home Energy Management Systems on Distribution Utilities and Feeders under various market structures, 23rd International Conference on Electricity Distribution
- Mittal, S.**, (2014), Model engineering in cyber complex adaptive systems, European Modeling and Simulation Symposium, Bordeaux, France
- Tolk, A., **Mittal, S.**, (2014), A necessary paradigm change to enable composable cloud-based M&S Services, Winter Simulation Conference, *invited*
- Mittal, S.**, Zeigler, B.P. (2014), Modeling attention switching in resource constrained complex intelligent dynamical systems (RCIDS), *Symposium on Theory of M&S/DEVS, Spring Simulation Multi-conference*, Tampa, FL
- Mittal, S.**, Martin, J.L.R. (2013), Model-driven Systems Engineering in a netcentric environment with DEVS unified process, invited paper to *Winter Simulation Conference*, Washington, DC.
- Mittal, S.**, Doyle, M.J., Watz, E., (2013), Detecting intelligent behavior with environment abstraction in complex air combat systems, *IEEE Systems conference*, Orlando, FL
- Mittal, S.**, & Douglass, S. A. (2012). DEVSML 2.0: The Language and the Stack. *DEVS Symposium, Spring Simulation Multiconference – Springsim '12*, Orlando, FL
- Mittal, S.**, & Douglass, S. A. (2011). Net-centric ACT-R-Based cognitive architecture with DEVS unified process. *DEVS Symposium, Spring Simulation Multiconference -- SpringSim'11*, Boston, MA.
- Mittal, S.**, & Douglass, S. A. (2011). From domain specific languages to DEVS components: Application to cognitive M&S. *Workshop on Model-driven Approaches for Simulation Engineering -- SpringSim'11*, Boston, MA.
- Douglass, S. A., & **Mittal, S.** (2011). Using domain specific modeling languages to improve the scale and integration of cognitive models. *Proceedings of the 20th Annual Conference on Behavior Representation in Modeling & Simulation*. Provo, UT.

- Murano, A., Martin, J.L.R., Portas, E.B., **Mittal, S.**, Aranda, J. (2009), DEVS/SOA: Towards DEVS Interoperability in distributed M&S, *IEEE/ACM International Symposium on Distributed and Real-Time Applications*
- Zeigler, B.P, **Mittal, S.**, Hu, X. (2008), Towards a formal standard of interoperability in M&S/System of systems engineering, *Critical Issues in C4I, AFCEA-George Mason University Symposium*
- Mittal, S.**, Zeigler, B.P. (2008), DEVS unified process for web-centric development and testing of system of systems, *Critical Issues in C4I, AFCEA-George Mason University Symposium*
- Mittal, S.**, Martin, J.L.R., Zeigler, B.P. (2008), WSDL-based DEVS agent for net-centric systems engineering, *International Workshop on Modeling and Applied Simulation, Italy*
- Mittal S.**, Zeigler B.P. (2008), "DEVS Unified Process for integrated development and testing of system of systems", *Critical Issues in C4I, AFCEA-George Mason University Symposium*
- Mittal, S.**, Martin, J.L.R., Zeigler, B.P. (2007), DEVSML: Automating DEVS simulation over SOA using transparent simulators", *DEVS Symposium*
- Mittal, S.**, Martin, J.L.R., Zeigler, B.P. (2007), DEVS-Based web services for net-centric T&E", *Summer Computer Simulation Conference*
- Mittal, S., Mitra, A., Gupta, A., Zeigler, B.P., (2006) Strengthening OV-6a Semantics with Rule-based meta-models in DEVS/DoDAF-based Life-cycle Architectures Development, IEEE International Conference on Information Reuse and Integration, HI, USA
- Mittal, S.**, Zeigler, B.P. (2005), Dynamic simulation control with queue visualization, *Summer Computer Simulation Conference*
- Mittal, S.**, Wu, W., Zeigler, B.P. (2004), A multiconstraint-based real-time routing scheme using simulation methodology, *Summer Computer Simulation Conference*

Technical Reports (6)

- Doyle, M.J., Portrey, A., **Mittal, S.**, Watz, E., Bennett, W., (2014) Not So Grand Challenge: Are current modeling architectures viable for rapid behavior modeling? (AFRL-RH-OH-2014-xxxx), Air Force Research Laboratory, Human Effectiveness Directorate, Warfighter Readiness Research Division, Dayton, OH (in preparation)
- Mittal, S.** (2014), Large Scale Cognitive Modeling Initiative: Application of DEVS M&S formalism for netcentric cognitive modeling and simulation framework, L3 Communications, submitted to Air Force Research Lab, WPAFB, OH
- Mittal, S.**, Seo, C. (2007), GENETSCOPE: Generic Network System Capable of Planned Expansion: A Manual, Joint Interoperability Test Command (JITC), Defense Information Systems Agency (DISA), Ft. Huachuca, AZ
- Mittal, S.**, Zeigler, B.P., Veena, M., Hammonds, P. (2004), Network simulation environment for evaluation and benchmarking HLA/RTI implementations, Joint Interoperability Test Command (JITC), Defense Information Systems Agency (DISA), Fort Huachuca, AZ
- Zeigler, B.P., **Mittal, S.**, (2002), Modeling and simulation of ultra-large networks: A framework for new research directions, supported by NSF Grant ANI-0135530
- Zeigler, B.P., Sarjoughian, H., **Mittal, S.**, (2001), Modeling and simulation of ultra-large networks: Thirteen Recommendations for new research directions, ULN Workshop, Tucson, AZ

Thesis (3)

- Ph.D. DEVS Unified Process for Integrated Development and Testing of Service Oriented Architectures
 M.S. Attention-Focusing Architecture for Scalable Networked Systems using Discrete Event Modeling
 B.S. Performance Evaluation of Static Routing Algorithms over Dynamic Multi-service Networks