## Curriculum Vitae

# TONYA W. STONE

Mississippi State University Department of Mechanical Engineering 204 Carpenter Engineering, Box 9552 Mississippi State, MS 39762

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Mississippi State	e, MS 39762		1		
Education	<ul> <li>2006- 2009 <u>Mississippi State University</u> Mississippi State, MS</li> <li><i>Ph.D., Mechanical Engineering</i></li> <li>GPA: 4.0/4.0</li> <li>Dissertation Title: Multiscale Friction using a Nested Internal State Variable Model for Particulate Materials</li> <li>Advisor: Professor Mark Horstemeyer (Ph.D., Georgia Institute Technology)</li> </ul>				
	<ul> <li>2004- 2006 <u>Mississippi State University</u> Mississippi State, M</li> <li><i>M.Sc., Mechanical Engineering</i></li> <li>GPA: 4.0/4.0</li> <li>Thesis Title: Molecular Dynamics Simulations of Nanoparticle Interactions</li> <li>Advisor: Professor Mark Horstemeyer (Ph.D., Georgia Institute Technology)</li> </ul>				
	1990- 1995 B.Sc., Mechanical Engineering • GPA: 3.84/4.00	Mississippi State University	Mississippi State, MS		
Professional Experience	2017- Present Associate Professor of Mechanical Graduate Faculty Appointment i	0 0	Mississippi State, M		
	<ul> <li>2009- 2017 Assistant Professor of Mechanical Engineering Graduate Faculty Appointment in Computational Engineering </li> <li>Research interests: mechanical behavior of materials, including metals, polymers, cementitious materials and biomaterials using small-scale simulations and experimentation; micro-structure-property relations, fatigue, failure analysis, molecular dynamics, discrete element methods, as we as industrial issues in the areas of powder metallurgy and additive manufacturing </li> <li>Teaching: Mechanics of Machinery, Applied Elasticity, Failure of Engineering Analysis</li></ul>				
	<ul> <li>2004- 2009 <u>Center for Advanced Vehicular Systems (CAVS)</u> Mississippi State, MS Research Associate I, Computational Manufacturing &amp; Design</li> <li>Graduate Research Assistant, Computational Manufacturing &amp; Design</li> <li>Modeled metallic particle interactions using molecular dynamics simulations</li> <li>Conducted uniaxial compaction, sintering, dilatometry, and immersion density experiments on powder metal compacts</li> <li>Taught several lectures of Inelasticity course to graduate students</li> </ul>				
	over \$200MM) for Dow Polyurethane, Super Ab and Polyethylene	<u>The Dow Chemical Company</u> <i>gn &amp; Construction</i> process equipment design on capital project production plants worldwide in the follow sorbent Polymers, AgroSciences, Polystyren , gave training sessions on 3D modeling, tra	ring technology areas: ne, Waste Water Treatment,		

- Led mechanical project team on developing technical equipment specifications, performing technical bid evaluations, reviewing equipment drawings, and providing construction support
- Developed and implemented new work process for meeting schedule commitments on projects

1991-1995NSF ERC for Computational Field SimulationMississippi State, MSUndergraduate Research Assistant (Advisors: Professor Bharat Soni, Professor Robert Moorhead)Mississippi State, MS

- Wrote training manual for grid generation code
- Gave research presentation

#### Publications <u>Peer-Reviewed Journal Publications/Books Chapters</u>

#### Italicized names are students

- O.R. Junaid, T. W. Stone, J.H. Alexander, Experimental Characterization of Milling, Compaction and Sintering of Nanocrystalline FC-0205 Copper Steel Powder, Global Journal of Researches in Engineering, 18 (1) (2018)
- [2] M.J. Mahtabi, A. Yadollahi, M. Rahmati, T. W. Stone, Correlation Between Hardness and Loading Transformation Stress of Superelastic NiTi, Arabian Journal for Science and Engineering, (2018)
- [3] T.W. Stone, Y. Hammi, Chapter 13: Nickel Powder Metal Modeling Illustrating Atomistic-Continuum Friction Laws. Integrated Computational Materials Engineering (ICME) for Metals: Concepts and Case Studies, Ed. M.F. Horstemeyer, Wiley (2018) 447-464.
- [4] Y. Hammi, T.W. Stone, H. Doude, L.A. Tucker, P.G. Allison, M.F. Horstemeyer, Chapter 6: Steel Powder Metal Modeling. *Integrated Computational Materials Engineering (ICME) for Metals: Concepts and Case Studies*, Ed. M.F. Horstemeyer, Wiley, (2018) 137-
- [5] H. Cho, Y. Hammi, D.K. Francis, T.W. Stone, Y. Mao, C. K. Sullivan, J. Wilbanks, R. Zelinka, M.F. Horstemeyer, Chapter 7: "Microstructure Sensitive, History Dependent Internal State Variable Plasticity-Damage Model for a Sequential Tubing Process. Integrated Computational Materials Engineering (ICME) for Metals: Concepts and Case Studies, Ed. M.F. Horstemeyer, Wiley (2018) 199-234.
- [6] M. N. Burcham, R. Escobar Jr., C.O. Yenusah, T. W. Stone, G.N. Berry, A.L. Schemmel, B.M. Watson, C.U. Verzynyvelt, Characterization and Failure Analysis of an Automotive Ball Joint, Journal of Failure Analysis and Prevention 17 (2) (2017) pp. 262-274.
- [7] Y. Hammi, T.W. Stone, B. Paliwal, P.G. Allison, M.F. Horstemeyer, Smooth Yield Surface Constitutive Modeling for Granular Materials, ASME *Journal of Engineering Materials and Technology* 139 (1) (2016)
- [8] M. Murphy, M. F. Horstemeyer, S. R. Gwaltney, T.W. Stone, M. LaPlaca, J. Liao, L. Williams, R. Prabhu, Nanomechanics of phospholipid bilayer failure under strip biaxial stretching using molecular dynamics. *Modeling and Simulation in Materials Science and Engineering* 24 (5) (2016) 055008.
- [9] W. Song, J. L. Woods, R. T. Davis, J. K. Offutt, E. P. Bellis, E. S. Handler, C. K. Sullivan, T. W. Stone, Failure Analysis and Simulation Evaluation of an Al 6061 Alloy Wheel Hub. Journal of Failure Analysis and Prevention 15 (4) (2015) 521-533.

- [10] C. A. Walton, B. E. Nesbit, H. M. Candia, Z. A. Myers, W. R. Whittington, T. W. Stone, Failure analysis and mechanical performance evaluation of a cast aluminum hybrid-iron golf club hosel. *Journal of Failure Analysis and Prevention* 13 (5) (2013) 561-569.
- [11] T.W. Stone, M. F. Horstemeyer, Length Scale Effects of Friction in Particle Compaction Using Atomistic Simulations and a Friction Scaling Model. *Journal of Nanoparticle Research* 14 (2012) 1121.
- [12] E. Acar, Y. Hammi, P. G. Allison, T. W. Stone, M. F. Horstemeyer, Sensitivity and Uncertainty Analysis of Microstructure-Property Relations for Compacted Powder Metals. *Powder Metallurgy* 53 (2) (2010) 141-145.
- [13] T. W. Stone, M. F. Horstemeyer, Y. Hammi, P. M. Gullett, Contact and Friction of Single Crystal Nickel Nanoparticles using Molecular Dynamics. *Acta Materialia* 56 (14) (2008) 3577-3584.

#### Peer-Reviewed Journal Articles In Review

#### Italicized names are students

[14] M.J. Mahtabi, T.W. Stone, N. Shamsaei, Load Sequence Effects and Variable Amplitude Fatigue of Superelastic NiTi, International Journal of Mechanical Sciences ACCEPTED

#### Peer-Reviewed Conference Proceedings

#### Italicized names are students

- P.J. Hill, B. Kirkland, Y. Koshka, R. Sullivan, T.W. Stone, A Multidisciplinary Undergraduate Nanotechnology Education Program with Integrated Laboratory Experience and Outreach Activities, 2016 ASEE Annual Conference & Exposition Proceedings, New Orleans, June (2016)
- [2] P.J. Hill, Y. Koshka, T.W. Stone, B. Kirkland, R. Sullivan, A Multidisciplinary Undergraduate Nanotechnology Education Program with Integrated Laboratory Experience, 2015 ASEE Annual Conference & Exposition Proceedings, Seattle, June (2015)
- [3] T. W. Stone, K. SalemeRuiz, O. Asafa, Y. Hammi, Die Filling and Compaction Using a Multiscale Methodology. Proceedings of the MPIF/APMI 2012 International Conference on Powder Metallurgy and Particulate Materials. Nashville, USA (2012).
- [4] C. Hardin, T. W. Stone, P. M. Gullett, D. Ward, Atomistic Modeling of Aluminum Nanoparticle Interactions. Proceedings of the 2010 Materials Science and Technology Conference, Houston, USA (2010) 1195-1206.
- [5] Y. Hammi, T.W. Stone, P.G. Allison, M.F. Horstemeyer, "Fatigue Modeling of a Powder Metallurgy Main Bearing Cap." Proceedings of the 2010 SIMULIA Customer Conference, Providence, RI USA, May 25-27, 2010.
- [6] T. W. Stone, Y. Hammi, R. Carino, M. F. Horstemeyer, Modeling for Powder Metallurgy Component Design and Performance Prediction. *Proceedings of the MPIF/APMI 2009 International Conference on Powder Metallurgy and Particulate Materials.* Las Vegas, USA (2009)
- [7] T. W. Stone, H. I. Sanderow, E. Acar, Y. Hammi, K. N. Solanki, Process Modeling: Use of Uncertainty, Sensitivity and Optimization Techniques for Improved Understanding of Compaction Model Outputs. *Proceedings of the MPIF/APMI 2009 International Conference on Powder Metallurgy and Particulate Materials.* Las Vegas, USA (2009).

- [8] T. W. Stone, L. Tucker, T. N. Williams, Y. Hammi, H. El Kadiri, M. F. Horstemeyer, Comparison of Density Measurement Techniques for Large P/M Components. *Proceedings of the World Congress on Powder Metallurgy and Particulate Materials*. Washington, DC USA (2008) 11-84 – 11-96.
- [9] Y. Hammi, L. Tucker, P. G. Allison, T. W. Stone, M. F. Horstemeyer, E. B. Marin, Modeling for Powder Metallurgy Component Design and Performance Prediction. *Proceedings of the World Congress on Powder Metallurgy and Particulate Materials*. Washington, DC USA (2008) 1-96 –1-110.
- [10] T. Stone, B. Jelinek, P. Gullett, S. Kim, M. Horstemeyer, Molecular Dynamics Simulations of the Compressive Behavior of α-Fe and Fe-Cu Nanocrystalline Materials. *Proceedings of the MPIF/APMI 2007 International Conference on Powder Metallurgy and Particulate Materials*. Denver, CO USA (2007)1-15 –1- 24.
- [11] T. Stone, L. Arias-Meza, Y. Hammi, M. F. Horstemeyer, Multiscale Modeling of Powder Metallurgy Processes. Proceedings of the MPIF/APMI 2006 International Conference on Powder Metallurgy and Particulate Materials. San Diego, USA (2006) 1-41 –1-54.
- [12] Y. Hammi, T. Stone, M. F. Horstemeyer, Constitutive Modeling for Powder Compaction and Densification. Proceedings of the MPIF/APMI 2005 International Conference on Powder Metallurgy and Particulate Materials. Montreal, Canada (2005) 1-38 –1-51.
- [13] Y. Hammi, T. W. Stone, M. F. Horstemeyer, Constitutive Modeling of Metal Powder Behavior. SAE 2005 World Congress & Exhibition, Transactions, *Journal of Materials & Manufacturing* 114 (5) (2005) 293–299.

#### Technical Reports

#### Italicized names are students

- K. Saleme Ruiz, T. W. Stone, Implementation of a New Force Scheme into DEM for Brittle Polycrystalline Materials, Army Engineer Research & Development Center (2014) 1-17.
- [2] *K. Saleme Ruiz*, **T. W. Stone**, Computational Modeling of Brittle Polycrystalline Materials Based on Discrete Element Method, Army Engineer Research & Development Center (**2013**) 1-52.
- [3] K. Saleme Ruiz, T. W. Stone, Method for Digitally Generating the Microstructure for Brittle and Layered Biomaterials, Army Engineer Research & Development Center (2013) 1-30.
- [4] T.W. Stone, M.F. Horstemeyer, Y. Hammi, P. Allison, H. Grewal, E. Acar, L. Tucker, H. Brown, S.J. Park, and P.T. Wang, Process and Performance History Modeling of a Powder Metal Engine Bearing Cap Under Monotonic and Cyclic Loads, MSU.CAVS.CMD.2009-R0001, Center for Advanced Vehicular Systems prepared for USCAR (2009)

#### Peer-Reviewed Abstracts

#### Italicized names are students

- T.W. Stone, K. Sullivan, R. Zelinka, "The Stucture-Property Relationship of Cold-Drawn 1010 Steel Tubing", The Minerals, Metals, & Materials Society (TMS) Conference, Orlando, FL, March 15-19, 2015.
- M.A. Murphy, M. F. Horstemeyer, S.R. Gwaltney, T.W. Stone, M.C. LaPlaca, J. Liao, L. Williams,
   R. Prabhu, "Phospholipid Deformation Size Effects during Tensile Molecular Dynamics

Simulations," Poster at Biomedical Engineering Society (BMES) 2015 Annual Meeting, scheduled for October 7-10, 2015 in Tampa, Florida

- [3] M. A. Murphy, M. F. Horstemeyer, S. R. Gwaltney, T. W. Stone, M. C. LaPlaca, J. Liao, et al., "The Effects of Stress State on the Mechanical Response and Failure of the Neuronal Phospholipid Bilayer: a Molecular Dynamics Study," Poster at 2015 Summer Biomechanics, Bioengineering, and Biotransport Conference (SB3C), Snowbird, UT, 2015, pp. 1288-1289.
- [4] M. A. Murphy, M. F. Horstemeyer, S. R. Gwaltney, T. W. Stone, M. C. LaPlaca, J. Liao, et al., "Validation of High Rate Strip Biaxial Tension Deformations of the Neuronal Phospholipid Bilayer Using Empirical Data," Poster at Summer Biomechanics, Bioengineering, and Biotransport Conference (SB3C), Snowbird, UT, 2015, pp. 1268-1269.
- [5] M. A. Murphy, S. Mun, M. F. Horstemeyer, S. R. Gwaltney, T. W. Stone, M. C. LaPlaca, et al., "Constructing Rudimentary Limit Curves For Neuronal Phospholipid Bilayer Failure and Theoretical Calcium Penetration," 2015 Summer Biomechanics, Bioengineering, and Biotransport Conference (SB3C), Snowbird, UT, 2015, pp. 1093-1094.
- [6] K. Sullivan, T.W. Stone, M.F. Horstemeyer, R. Zelinka, "The Stucture-Property Relationship of Cold-Drawn 1010 Steel Tubing", The Minerals, Metals, & Materials Society (TMS) Conference, San Diego, CA, February 16-20, 2014.
- [7] K. SalemeRuiz, T.W. Stone, B. Devine, L. Walizer, W. Hodo, "Fracture Criterion for Brittle Polycrystalline Materials Based on a Discrete Element Method", Poster at The Minerals, Metals, & Materials Society (TMS) Conference, San Diego, CA, February 16-20, 2014.
- [8] K. SalemeRuiz, T.W. Stone, B. Devine, L. Walizer, W. Hodo, Structure-Property Correlations of a Digitally Represented Polycrystalline Microstructure based on Discrete Element Method, Material, Science, and Technology (MS&T) Conference, Montreal, Canada, October 27- 31, 2013.
- [9] T.W. Stone, Y. Hammi, Compaction Modeling using a Multiscale Methodology, Material, Science, and Technology (MS&T) Conference, Montreal, Canada, October 27- 31, 2013.
- [10] C.K. Sullivan, T.W. Stone, M.F. Horstemeyer, R. Zelinka, "Effect of Microstructure on the Mechanical Properties of Cold-Drawn 1010 Steel Tubing", Material, Science, and Technology (MS&T) Conference, Montreal, Canada, October 27- 31, 2013.
- [11] T. McIntyre, T.W. Stone, Y. Hammi, "Effect of Size and Processing Conditions on the Consolidation of Nanocrystalline Metal Powders", Material, Science, and Technology (MS&T) Conference, Montreal, Canada, October 27- 31, 2013.
- [12] O. Asafa, T.W. Stone, M.A. Tschopp, P.M. Gullett, M.F. Horstemeyer, "Molecular Dynamics Study of Frictional Effects on the Compaction of Metal Nanoparticles", Material, Science, and Technology (MS&T) Conference, Columbus, OH, October 16-20, 2011.
- [13] T.W. Stone, O.Asafa, J.D. Stone, Y. Hammi, "Deformation Mechanisms in Nanocrystalline Metals", Material, Science, and Technology (MS&T) Conference, Columbus, OH, October 16- 20, 2011.
- [14] T.W. Stone, O.Asafa, M.F. Horstemeyer, "Atomic-Scale Friction in Metal Nanoparticles using Molecular Dynamics Simulations", Material, Science, and Technology (MS&T) Conference, Houston, TX, October 17- 21, 2010.

## Grants Total Funded Projects: 12, \$7.8 million

## Received Nat

# National Science Foundation

- Amount: \$174,980
- Title: BRIGE: Multiscale Modeling and Simulation of the Consolidation of Metallic Nanoparticles
- Dates: Sep. 2010 Aug. 2015
- Role: Principal Investigator

## MSU Office of Research and Economic Development

- Amount: \$2,000
- Title: The Intersection of Mentoring and Socialization: Increasing Faculty of Color Presence in Academia
- Dates: Nov. 2015 Oct. 2016
- Role: Co- Principal Investigator

## Predictive Design Technologies/ Plymouth Tube

- Amount: \$104,815
- Title: Innovative Process-Structure-Property Relations and Design
- Dates: Aug. 2012 Jul. 2014
- Role: Principal Investigator

## National Science Foundation

- Amount: \$200,000
- Title: NUE: Multifunctional Nanostructures for Integrated Electrical, Chemical, Mechanical, and Geological Applications: A Multidisciplinary Laboratory Education Program
- Dates: Jan. 2014 Dec. 2016
- Role: Co-Principal Investigator

## National Science Foundation

- Amount: \$287,944
- Title: REU: Physical Properties of Materials
- Dates: Mar. 2014 Feb. 2017
- Role: Senior Personnel

## Army Engineering Research and Development Center (ERDC)

- Amount: \$70,343
- Title: Discrete Element Modeling of Layered Bio-Materials
- Dates: Jul. 2012 Jun. 2013
- Role: Principal Investigator

## Department of Defense: Consortium for Energy, Environment, and Demilitarization (CEED)

- Amount: \$91,856
- Title: Nonlinear Mathematical Formulation for Discrete Particle Fracture
- Dates: Sep. 2013 Sep. 2014
- Role: Child Principal Investigator

## DoD-IVPPED Integrated Virtual Prototyping for Product Engineering & Design

- Amount: \$96,897
- Title: Nonlinear Mathematical Formulation for Discrete Particle Fracture
- Dates: Sep. 2014 Sep. 2015
- Role: Child Principal Investigator

## Department of Defense: Consortium for Energy, Environment, and Demilitarization (CEED)

- Amount: \$2.1 MM (\$420,000 per year)
- Title: Multiscale Cementitious Materials
- Dates: Feb. 2014 Jan. 2019
- Role: Senior Investigator

# Department of Defense: Computational Research for Engineering and Science – Ground Vehicle (CRES-GV)

- Amount: \$750,000 (\$250,000 per year for 3 years)
- Title: Discrete Element Method Software Development
- Dates: Nov 15 Oct. 2018
- Role: Child Co-Principal Investigator

## Department of Defense: SimBRS

- Amount: \$2 MM (\$400,000 per year for 5 years)
- Title: WD 64- Virtual Prototyping of Vehicle Systems, MMSF model for metals and polymers
- Dates: Feb. 2014 Jan. 2019
- Role: Senior Investigator

## Department of Defense: Army Research Laboratory

- Amount: \$2 MM (\$400,000 per year for 5 years)
- Title: Collaborative Research: : Transitioning Material Systems From Laboratory to Fabrication Dates: Aug. 2015 – Jul. 2020
- Role: Senior Investigator

Research Presentations	<ul> <li>"Material Characterization and Structure Property Relations in Process Modeling" at Additive Manufacturing Working Group Meeting, Mississippi State University, April 6, 2015.</li> </ul>		
•	Compaction Modeling using a Multiscale Methodology, Material, Science, and Technology (MS&T) Conference Proceedings, Montreal, CA, October 27- 31, 2013.		
-	"Die Filling and Compaction Using a Multiscale Methodology," International Conference on Powder Metallurgy and Particulate Materials, Nashville, TN, June 2012.		
<ul> <li>"Molecular Dynamics Study of Frictional Effects on the Compaction of Metal Nanop Material, Science, and Technology (MS&amp;T) Conference, Columbus, OH, October 2011</li> </ul>			

 "Multiscale Modeling of Nanoparticle Deformation," Material, Science, and Technology (MS&T) Conference, Columbus, OH, October 2011.

	<ul> <li>"Molecular Dynamics Simulations of Nanoparticle Interactions," Minority Faculty Development Workshop Poster Session, MIT, March 2010.</li> </ul>			
	"Modeling for Powder Metallurgy Component Design and Life Cyle Prediction: Sintering," International Conference on Powder Metallurgy and Particulate Materials, Las Vegas, NV, June 2009.			
	<ul> <li>"Process Modeling: Use of Uncertainty, Sensitivity and Optimization Techniques for Improved Understanding of Compaction Model Outputs," International Conference on Powder Metallurgy and Particulate Materials, Las Vegas, NV, June 2009.</li> </ul>			
	<ul> <li>"Molecular Dynamics Simulations of the Compressive Behavior of α-Fe and Fe-Cu Nanocrystalline Materials," International Conference on Powder Metallurgy and Particulate Materials, Denver, Colorado, May 2007.</li> </ul>			
	<ul> <li>"Multiscale Modeling of P/M Processes," International Conference on Powder Metallurgy and Particulate Materials, San Diego, California, June 2006.</li> </ul>			
Professional	<ul> <li>Member of American Society of Mechanical Engineers (ASME) since 2006</li> </ul>			
Affiliations	<ul> <li>Member of The Minerals, Metals &amp; Materials Society (TMS) since 2010</li> </ul>			
	<ul> <li>Member of American Society of Engineering Education (ASEE)</li> </ul>			
	<ul> <li>Member of Society of Women Engineers (SWE)</li> </ul>			
	<ul> <li>National Society of Black Engineers (NSBE)</li> </ul>			
	Phi Kappa Phi Honor Society			
Service	• Appointed Chair of TMS Education Committee (2016-)			
	<ul> <li>Faculty Advisor- Mechanical Engineering Minority Organization (2015-)</li> </ul>			
	<ul> <li>Co-Chair- MSU Council on Minority Affairs (2015-)</li> </ul>			
	<ul> <li>Co-Organizer-2018, 2019 MS&amp;T Conferences, "Curricular Innovations and continuous</li> </ul>			
	Improvement of Academic Programs (and Satisfying ABET Along the Way): The Elizabeth			
	Judson Memorial Symposium"			
	Co-Organizer-2014 TMS Conference "Mechanical Behavior Related to Interface Physics II			
	Symposium"			
	• Reviewer- Metallurgical and Materials Transactions A (2013-)			
	<ul> <li>Reviewer- Journal of Nanoparticle Research (2012-)</li> </ul>			
	• Committee Member of TMS Powder Materials Committee (2012-)			
	Committee Member of TMS Nanomechanical Materials Behavior Committee (2012-)			
	• Education Representative- TMS Materials Processing & Manufacturing Division (2012-2015)			
	• Session Co-Chair, 2011 MS&T Conference: Multi Scale Modeling of Microstructure			
	Deformation in Material Processing Symposium			
	• Session Chair, TMS 2014: Characterization of Minerals, Metals and Materials Symposium,			
	Characterization of Material Processing Session			
	• Session Chair, TMS 2015: Characterization of Minerals, Metals and Materials Symposium,			
	Characterization of Ferrous Metals Session			
	• Faculty Representative-MSU President's Commission on the Status of Women (2009-2012)			
	• Reviewer- NSF BRIGE program (2011, 2013)			
	• <b>Reviewer</b> - NSF CMMI (2010, 2011, 2013)			
	• <b>Reviewer</b> - NSF MPS- DMR (2014)			

Curriculum Vitae

- **Reviewer** NSF Graduate Research Fellowship Program (2013, 2015, 2016)
- **Reviewer** Oxford University Press (2013, 2014)

Professional & Civic	03/2014	Women of Color Summit Panel Session "A New Female Epidemic: The Burden of Greatness", Mississippi State University		
Presentations	08/2013	NSF Annual BRIGE Grantee Meeting "Multiscale Modeling and Simulation of the Consolidation of Metallic Nanoparticles- Broadening Participation Highlights", Washington, D.C.,		
	04/2012	Faculty Panel for Graduate/Professional Students, Mississippi State University		
02/2012		Gender Series Lecture: "Women in Science, Technology, Engineering, and Math", Mississippi State University		
	09/2010	MSU NSF GRFP Workshop, Mississippi State University		
	07/2010	IMAGE Summer Bridge Program "How to Be a Successful Student", Mississippi State University		
	03/2010	New Faculty Panel "Balancing Multiple Roles as New Faculty", Mississippi State University		
	03/2010	IMAGE Student Meeting "Graduate School vs. Industry", "Mississippi State University		
	03/2010	Fellowship Workshop "Reflections from a Former NSF Graduate Fellow", Mississippi State University		
	01/2010	Annual Winter Scholar Symposium, Alliance for Graduate Education in Mississippi "Prepared for the Professoriate: Was I Really?," University of Southern Mississippi		
	07/2009	WISE Summer Camp "Who Wants to Be an Engineer?" Mississippi State University		
Honors and Recognition	<ul> <li>2012 Faculty Appreciation Award for Enhancing Diversity, James Worth Bagley College of Engineering, Mississippi State University</li> </ul>			
	<ul> <li>2010 The Alliance for Graduate Education in Mississippi (AGEM) Graduate Award</li> </ul>			
	<ul> <li>2010 Faculty Appreciation Award for Enhancing Diversity, James Worth Bagley College of Engineering, Mississippi State University</li> </ul>			
	<ul> <li>2009 Women of Color Magazine and IBM Corporation Technology Rising Star Award</li> </ul>			
	<ul> <li>2009 Stem Women's Walk of Fame Honoree, MSU Studio School Summer Camp</li> </ul>			
	<ul> <li>2009 Engineering Research Support Staff Award, Mississippi State University</li> </ul>			
	<ul> <li>2006 Engineering Graduate Student Research Award, Mississippi State University</li> </ul>			
	<ul> <li>2005 National Science Foundation Graduate Research Fellowship Award</li> </ul>			
	<ul> <li>2004 Graduate Research Assistant Fellowship, Center for Advanced Vehicular Systems, Mississippi State University</li> </ul>			
	<ul> <li>2004 Hearin Hess Graduate Scholarship, Mississippi State University</li> </ul>			
	<ul> <li>2001 Dow Special Recognition Award(for project cost savings)</li> </ul>			
	<ul> <li>1998 Dow Project Excellence Award (EPT Project)</li> </ul>			

## Mentoring Current students

- Ph.D. advisor of Mr. Micael Edwards (Mechanical Engineering, Dec 2018)
- M.S. non-thesis advisor of Mr. Azizi Turner (Mechanical Engineering, Aug 2018)
- M.S. non-thesis advisor of Mr. Dakota Jordan (Mechanical Engineering, Dec 2018)
- Undergraduate research advisor of Mr. Tyrone McDonald (Mechanical Engineering)
- Ph.D. committee of Mr. Daniel Johnson (Mechanical Engineering)
- Ph.D. committee of Mr. Michael Murphy (Biomedical Engineering)
- Ph.D. committee of Mr. Clay Goodman (Civil Engineering)
- Ph.D. committee of Mr. Brad Hansen (Civil Engineering)
- Ph.D. committee of Mr. Javier Osorio-Carrasquillo (Civil Engineering)

## Former students

- Ph.D. co-advisor of Mr. Mohammad Javad Mahtabi Oghani (Mechanical Engineering, Aug. 2017)
- Ph.D. advisor of Ms. Katerine SalemeRuiz (Computational Engineering, Aug. 2016)
- M.S. thesis advisor of Mr. Caleb Yenusah (Mechanical Engineering, Dec 2017)
- M.S. thesis advisor of Mr. David McInnis (Mechanical Engineering, Dec 2017)
- M.S. thesis co-advisor of Mr. Benjamin Rutherford (Mechanical Engineering, May 2017)
- M.S. thesis co-advisor of Mr. Alexander Johnson (Mechanical Engineering, May 2017)
- M.S. thesis advisor of Mr. Olelakan Junaid (Mechanical Engineering, Aug. 2016)
- M.S. thesis advisor of Mr. Charles Sullivan (Mechanical Engineering, Aug. 2014)
- M.S. thesis advisor of Mr. Olufemi Asafa (Mechanical Engineering, Aug. 2012)
- M.S. non-thesis advisor of Mr. Trevor Smith (Mechanical Engineering, Dec. 2017)
- M.S. non-thesis advisor of Mr. Thomas McIntyre (Mechanical Engineering, May 2017)
- M.S. non-thesis advisor of Ms. Lana Turner (Mechanical Engineering, Aug. 2013)
- Undergraduate research advisor of Mr. Zachary Collins (Mechanical Engineering)
- Undergraduate research advisor of Ms. Breanna Pittman (Mechanical Engineering)
- Undergraduate research advisor of Mr. Patrick King (Mechanical Engineering)
- Undergraduate research advisor of Mr. Cameron L. Hardin (Mechanical Engineering, Dec. 2011)
- Undergraduate research advisor of Ms. Palara Grant (Mechanical Engineering)
- Undergraduate research advisor of Ms. Ayesha Hicks (Chemical Engineering)
- M.S. thesis committee of Mr. Clay Goodman (Civil Engineering)
- M.S. thesis committee of Mr. Brad Hansen (Civil Engineering)
- M.S. thesis committee of Ms. Megan Burcham (Mechanical Engineering, May 2016)
- M.S. thesis committee of Mr. Michael Murphy (Biomedical Engineering, May 2014)
- Ph.D. dissertation committee of Mr. Aref Yadollahi (Mechanical Engineering)
- Ph.D. dissertation committee of Mr. Josef Cobb (Mechanical Engineering, May 2016)
- Ph.D. dissertation committee of Mr. William Lawrimore (Mechanical Engineering, May 2016)
- Ph.D. dissertation committee of Mr. Chris Walton (Mechanical Engineering, Dec. 2013)
- Ph.D. dissertation committee of Ms. Marta Guerra (Physics, May 2010)

#### Teaching Experience

- ME 3423- Mechanics of Machinery (Junior/Senior Undergraduate students)
- EM 8203- Applied Elasticity (Graduate/Distance students)

	Curriculum Vitae	Tonya W. Stone, Ph.D.		
	<ul> <li>ME 4123/6123- Failure of Engineering Materials (Graduate/Seni students)</li> </ul>			
	<ul> <li>CHE 1001- Nano Exposed Seminar (Freshman Undergraduate st</li> </ul>	tudents)		
Professional Workshops Attended	<ul> <li>August 5-7, 2015, Large-scale Atomic/Molecular Massively Parall Workshop and Symposium, Albuquerque, NM</li> </ul>	× ,		
	<ul> <li>September 2015, NSF Minority Faculty Development Workshop —21st Century Mindsets &amp; Strategies for Career Advancement (NSF travel grant, Washington, DC</li> </ul>			
	<ul> <li>May 30- June 1, 2012 NSF Summer Institute Short Course on M and Engineering in Multiscale Structures and Materials (NSF trave Institute of Technology</li> </ul>	0 0 0,		
	<ul> <li>July 19-21, 2011, "How to Engineer Engineering Education" Tea University</li> </ul>	ching Workshop, Bucknell		
	<ul> <li>March 2010, NSF Career Proposal Writing Workshop (NSF trave Technology</li> </ul>	el grant), Georgia Institute of		
	<ul> <li>March 2010, NSF Minority Faculty Development Workshop (NS Institute of Technology</li> </ul>	F travel grant), Massachusetts		
	<ul> <li>May 27 – 30, 2009, NSF Summer Institute Short Course on Multi and Simulation and Experimental Validation on Enabling Materia</li> </ul>	-		

and Simulation and Exper Northwestern University