

Addis Kidane, Ph.D.

Associate Professor, Civil Engineering and Engineering Mechanics
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Prof. Kidane's field of research is experimental solid mechanics, which focuses on the mechanics of materials such as composites, nanocomposites, functionally graded materials, cellular materials, polycrystalline materials, and energetic materials under high-strain-rate loading and elevated temperatures. Prof. Kidane's current research is focused on three main themes of mechanics of materials: (i) understanding the failure mechanisms in heterogeneous materials, such as rigid foams, composites, and energetic materials subjected to impact loading, ii) damage mechanisms in functionally graded materials, polycrystalline metals, and composite via local in-site DIC and iii) effect of nanoparticles on the thermal and mechanical properties of nanocomposites and fiber-based composites.

Prof. Kidane obtained his doctoral degree in Mechanical Engineering and Applied Mechanics from the University of Rhode Island (URI) and spent two years as a postdoctoral scholar at the California Institute of Technology. Prof. Kidane joined the University of South Carolina in August 2011 as an assistant professor and was tenured and promoted to Associate Professor in 2017, and served until January 31, 2022. Prof. Kidane is currently an associate professor in the Department of Civil Engineering and Engineering Mechanics at Columbia University.

PROFESSIONAL EXPERIENCE

Associate Professor, Civil Engineering and Engineering Mechanics (01/2022 – present)
Columbia University, New York, NY

Associate Professor, Department of Mechanical Engineering, (8/2017 – 01/2022)
The University of South Carolina, Columbia, SC

Assistant Professor, Department of Mechanical Engineering (8/2011 - 8/2017)
University of South Carolina, Columbia, SC

Summer Visiting Researcher, Sandia National Laboratory (May 21 – June 14, 2012)

Postdoctoral Research Scholar, Graduate Aerospace Laboratories (2009 - 2011)
California Institute of Technology, Pasadena, CA

Graduate Research Assistant, Department of Mechanical Engineering (2006 - 2009)
University of Rhode Island, Kingston, RI

Graduate Research Assistant, Department of Aerospace Engineering (2003 - 2005)
Indian Institute of Technology, Bombay, India

EDUCATIONAL HISTORY

Postdoctoral Research Scholar, Graduate Aerospace Laboratories (2009-2011)
California Institute of Technology, Pasadena, CA (Research Advisor Dr. G. Ravichandran)

Ph.D., Mechanical Engineering and Applied Mechanics, (08/ 2009)
The University of Rhode Island, Kingston, RI (Advisor: Dr. Arun Shukla)

M.S., Aerospace Engineering, (08/ 2005)
Indian Institute of Technology Bombay, India (Advisor: Dr. N. K. Naik)

B.S., Mechanical Engineering, (11/ 2001)
DEC, Debrezeit, Ethiopia

HONORS AND AWARDS

- ❖ Carnegie Africa Diaspora Fellow, July 2023- September 23
- ❖ Carnegie Africa Diaspora Fellow, June 2022-August 2022
- ❖ Fulbright U.S. Scholar, Addis Ababa Institute of Technology, Ethiopia 2019/2020
- ❖ The Peterson Award, SEM's Best Paper Award for the Journal of Dynamic Behavior of Materials, SEM, 2018
- ❖ The James W. Dally Young Investigator Award, Society for Experimental Mechanics 2018.
- ❖ 2018 Breakthrough Star, Office of the Vice President for Research, University of South Carolina, 2018
- ❖ Young Investigator Research Award, College of Engineering and Computing, the University of South Carolina, 2017
- ❖ ORR Early Career Award, American Society of Mechanical Engineers (ASME), Materials Division, 2016
- ❖ Young Investigator Research Program (YIP) Award, U.S. Air Force Office of Scientific Research (AFOSR), 2014
- ❖ Haythornthwaite Research Initiation Grants, the American Society of Mechanical Engineers (ASME), Applied Mechanics Division, 2013
- ❖ Broadening Participation Research Initiation Grants in Engineering (BRIGE) Award, National Science Foundation (NSF), 2013

PUBLICATIONS

Note: Kidane's Graduate students /postdocs have been underlined. Authors are listed in order of their contribution, except for Dr. Kidane, who is listed after his graduate students and postdoctoral researchers, regardless of their individual contributions.

Patent

A. Fahim, **A. Kidane**, M. A. Sutton, Method to Determine Mixed-Mode (I/III) Dynamic Fracture Toughness of Materials, U.S. Patent Pub. No.: U.S. 2020/0408657, **2021**.

Refereed Journals Published

1. S. Ravindran, **A. Kidane**. Multi-scale compaction behavior of granular composite." Mechanics of Materials: 105544, **2025**
2. E. Gashawtena, **A. Kidane**, B. Sirahbizu. Comparative analysis of unidirectional long and woven false banana fiber composites with the addition of crystalline nanocellulose particles." Cellulose: 1-22, **2025**.
3. A. Fahem, A. T. Guthai, **A. Kidane**. Novel Specimen Configuration to Investigate the Dynamic Mode-I Fracture of Adhesive Bond." AIAA Journal: 1-10, **2025**
4. V. Gupta, **A. Kidane**, Impact response of additively manufactured density-graded open-cell foams. International Journal of Impact Engineering, 105127, **2025**.

5. B. Koohbor, N. B. Mennie, **A. Kidane**. "Nonlinear large strain mechanics and failure of 45° woven CFRP laminates characterized by Full-Field measurements." *Composite Structures*: 118715, **2025**.
6. E. Gashawtena, **A. Kidane**, B. Sirahbizu, The Effect of Nanocellulose and Silica Filler on the Mechanical Properties of Natural Fiber Polymer Matrix Composites. *Results in Engineering*, 102898, **2024**.
7. V. Gupta, **A. Kidane**, Designing density-graded cellular materials for tailored constitutive response. *Composites Part B: Engineering*, 111793, **2024**.
8. E. Gashawtena, **A. Kidane**, B. Sirahbizu. Fabrication and Characterization of Natural Fiber-Polymer Composites for Prosthesis Socket Application. *Journal of Natural Fibers*, 21(1), 2354399, **2024**.
9. V. Gupta, **A. Kidane**, M. A. Sutton. Dynamic characteristics of density-graded cellular materials for impact mitigation. *International Journal of Solids and Structures* 296: 112816, **2024**.
10. E. Gashawtena, **A. Kidane**, B. Sirahbizu, Comparison of the Tensile Strength of Single Natural Fibers, *Cellulose* 1-16, **2024**.
11. S. Ravindran, V. Gupta, **A. Kidane**, Mechanism of Hotspot Formation in Energetic Materials Under Mild Impact Loading. *Journal of Dynamic Behavior of Materials*, 9(4), 375-383, **2023**
12. M. Troy, M. A. Sutton, S. Rajan-Kattil, T. Farouk, Y. J. Chao, M. Boozer, **A. Kidane**. "A hybrid experimental-computational study: Prediction of flow fields and full-field pressure distributions on measured shapes of three-tab asphalt roofing shingles subjected to hurricane velocity winds." *Forces in Mechanics* 11: 100193, **2023**.
13. K. H. Lee, **A. Kidane**, A. Shukla, Investigation of constantly and transiently propagating cracks in functionally graded materials by dynamic photoelasticity. *Journal of Mechanical Science and Technology*, 36(9):4433-4441, **2022**. (Impact Factor 1.85)
14. X. Leng, X. Deng, S. Ravindran, **A. Kidane**, S.M. Lessner, M.A. Sutton, T. Shazly, Viscoelastic Behavior of Porcine Arterial Tissue: Experimental and Numerical Study. *Experimental Mechanics*, 1-15, **2022**. (Impact Factor 2.8)
15. S. Rajan, T. Myers, M. A. Sutton, M. Boozer, A. Kidane, R. Ghorbani, F. Matta, Full-field shingle uplift measurements using StereoDIC: Comparison of single and double sealant three-tab shingle responses when subjected to hurricane velocity winds. *Journal of Wind Engineering and Industrial Aerodynamics*, 224: 104861, **2022**. (Impact Factor 4.6)
16. V. Gupta, **A. Kidane**, M.A Sutton, Closed-Form Solution for Shock Wave Propagation in Density-Graded Cellular Material Under Impact, *Theoretical and Applied Mechanics Letters* 11.5: 100288 **2021**. (Impact Factor 3.4)
17. R. Anay, D. Miller, A. Tssema, R. Wehbe, P. Ziehl, B. Tatting, Z. Gurdal, R. Harik, **A. Kidane**, An Experimental Investigation Concerning the Effect of AFP Defects on Progressive Damage in CFRP Coupons, *Composite Structures*, 279: 114725., **2022**. (Impact Factor 5.138)

18. S. Rajan, M. A. Sutton, R. Wehbe, Z. Gurdal, **A. Kidane**, I. Emri, Characterization of Viscoelastic Bending Stiffness of Uncured Carbon-Epoxy Prepreg Slit Tape, Composite Structure, 275 (2021): 114295, **2022**. ([Impact Factor 5.138](#))
19. [A. Fahem](#), **A. Kidane**, M.A. Sutton, Loading Rate Effects for Flaws Undergoing Mixed-Mode I/III Fracture, Experimental Mechanics, 1-17, **2021**. ([Impact Factor 2.496](#))
20. [B. Koohbor](#), [S. Ravindran](#), **A. Kidane**, In Situ Deformation Characterization of Density-Graded Foams in Quasi-Static and Impact Loading Conditions, International Journal of Impact Engineering, 150:103820, **2021**. ([Impact Factor 3.642](#))
21. [S. Ravindran](#), S. Sockalingam, K. Kodagali, **A. Kidane**, M. A. Sutton, B. Justusson, J. Pang, Mode-I behavior of adhesively bonded composite joints at high loading rates, Composites Science and Technology 198, 108310, **2020**. ([Impact Factor 7.094](#))
22. S. Rajan, M. A Sutton, S. Sockalingam, W. McMakin, Z. Gurdal, **A. Kidane**, Simulations and experiments for automated fiber placement of prepreg slit tape: Wrinkle formation and fundamental observations. Composites Part B: Engineering, 108287, **2020**. ([Impact Factor 7.635](#))
23. [A. Fahem](#), **A. Kidane**, M. A Sutton, A novel method to determine materials' mixed mode (I/III) dynamic fracture initiation toughness, International Journal of Fracture, 224: 47–65, **2020**. ([Impact Factor 2.807](#))
24. [B. Koohbor](#), N.K Singh, **A. Kidane**, Radial and Axial Inertia Stresses in High Strain Rate Deformation of Polymer Foams, International Journal of Mechanical Sciences, 105679, **2020**. ([Impact factor 4.631](#))
25. S. Rajan, M. A. Sutton, W. McMakin, E. Compton, **A. Kidane**, Z. Gurdal, R. Wehbe, Y. Farzana, Characterization of Mode I and Mode II traction–separation laws for cohesive separation of uncured thermoset tows, International Journal of Fracture 221 (1), 25-38, **2020**. ([Impact Factor 2.807](#))
26. [B. Koohbor](#), [M. Rohanafir](#), **A. Kidane**, Characterizing fracture response of cracked transversely graded materials, Composite Structures, 229: 111439, **2019**. ([Impact Factor 5.138](#))
27. [A. Fahem](#), **A. Kidane**, M.A. Sutton, Geometry Factors for Mode I Stress Intensity Factor of a Cylindrical Specimen with Spiral Crack Subjected to Torsion, Engineering Fracture Mechanics 214: 79-94, **2019**. ([Impact Factor 3.426](#))
28. H. Ahmed, MJL van Tooren, J Justice, R Harik, **A. Kidane**, AP Reynolds, Investigation and development of friction stir welding process for unreinforced polyphenylene sulfide and reinforced polyetheretherketone, J. of Thermoplastic Composite Materials 32 (9): 1242-1267, **2019**. ([Impact Factor 2.14](#))
29. [A. Fahem](#), **A. Kidane**, M.A Sutton "Mode-I Dynamic Fracture Initiation Toughness Using Torsion Load, Engineering Fracture Mechanics 213: 53-71, **2019**. ([Impact Factor 3.426](#))
30. S. Rajan, M. A Sutton, R Wehbe, B Tatting, Z Gurdal, **A. Kidane**, Measured Surface Deformation and Strains in Thin Thermoplastic Prepreg Tapes Steered along Curved Paths without Adhesion Using StereoDIC, Experimental Mechanics 59 (4): 531-547, **2019**. ([Impact Factor 2.496](#))

31. S. Ravindran, A. Tessema, **A. Kidane**, J. Jordan., Weak-shock wave propagation in polymer-based particulate composites". Journal of Applied Physics. 125, 145104; doi: 10.1063/1.5081035, **2019**. (Impact Factor 2.286)
32. S. Ravindran, A. Tessema, V. Gupta, **A. Kidane**, Effect of particle mass fraction on the multiscale dynamic failure behavior of particulate polymer composites, Experimental Mechanics. 1-11, **2019**. (Impact Factor 2.496)
33. S. Rajan, M.A. Sutton, R. Wehbe, B. Tatting, Z. Gurdal, **A. Kidane**, H. Harik, Experimental investigation of prepreg slit tape wrinkling during automated fiber placement process using StereoDIC. Composites Part B: Engineering, 160: 546-557, **2019**. (Impact Factor 7.635)
34. A. Tessema, W. Mitchell, B. Koohbor, S. Ravindran, M. Van Tooren, **A. Kidane**, The Effect of Nano-Fillers on the In-Plane and Interlaminar Shear Properties of Carbon Fiber Reinforced Composite, Journal of Dynamic Behavior of Materials, 4(3): 296-307, **2018**. (Impact Factor 2.289)
35. P. Malchow, B. Koohbor, S. Ravindran, **A. Kidane**, In-situ Quantification of Intra and Intergranular Deformation in Pure Magnesium Using Full-Field Measurements at Low and High Strain Rates, Mechanics of Materials, 126: 36-46, **2018**. (Impact Factor 2.993)
36. B. Koohbor, S. Ravindran, **A. Kidane**, A multiscale experimental approach for correlating global and local deformation response in woven composites, Composite Structures, 194: 328-334, **2018**. (Impact Factor 5.138)
37. X. Leng, X. Deng, S. Ravindran, **A. Kidane**, S. M. Lessner, M.A. Sutton, T. Shazly, Experimental and Numerical Evaluations of the Viscoelastic Mechanical Behavior of Arterial Tissue. arXiv preprint arXiv:1806.01470, **2018**.
38. S. Ravindran, B. Koohbor, P. Malchow, **A. Kidane**, Experimental Characterization of Compaction Wave Propagation in Cellular Polymers, International Journal of Solids and Structures, 139(140): 270-282, **2018**. (Impact Factor 3.213)
39. M. A. Sutton, A. Gilat, J. Seidt, S. Rajan, **A. Kidane**, Full Field Deformation Measurements in Tensile Kolsky Bar Experiments: Studies and Detailed Analysis of the Early Time History, Journal of Dynamic Behavior of Materials 4(1): 95-113, **2018**. (Impact Factor 2.289)
40. A. Tessema, S. Ravindran, **A. Kidane**, Gradual damage evolution and propagation in quasi-isotropic CFRC under quasi-static loading, Composites Structures, 185: 186-192, **2018**. (Impact Factor .5.138)
41. S. Rajan, M. A. Sutton, R. Fuerte, **A. Kidane**, Traction-Separation Relationship for Polymer-Modified Bitumen under Mode I Loading: Double Cantilever Beam Experiment with Digital Image Correlation. Engineering Fracture Mechanics, 187: 404-421, **2018**. (Impact Factor 3.426)
42. H. Heo, K. Kimkif, A. Tessema, **A. Kidane**, J. Ju, Thermo-Mechanically Tunable Elastic Metamaterials with Compliant Porous Structures. ASME, Journal of Engineering Materials and Technology 140(2), 4038029, **2018**. (Impact Factor 1.144)

43. B. Koohbor, S. Ravindran, **A. Kidane**, Effects of Cell-Wall Instability and Local Failure on the Response of Closed-Cell Polymeric Foams Subjected to Dynamic Loading, *Mechanics of Materials* 116: 67-76, **2018**. (Impact Factor 2.993)
44. A. Tessema, **A. Kidane**, Cross-property interaction between Stiffness, Damage and Thermal Conductivity in Particulate Nanocomposite, *Polymer Testing*, 64:127-135, **2017**. (Impact Factor 3.275)
45. S. Ravindran, A. Tessema, **A. Kidane**, Multiscale damage evolution mechanisms in polymer bonded sugars under dynamic loading, *Mechanics of Materials* 114: 97-106, **2017**. (**One of the most downloaded papers in November 2017**) (Impact Factor 2.993)
46. **A. Kidane**, H. L. Gowtham, N. K. Naik, Strain Rate Effects in Composites and Resins under Shear Loading: A Critical Review, *Journal of Dynamic Behavior of Materials*, 3(1): 110-132, **2017**. (Impact Factor 2.289)
47. Z. Wahab, Z.M. Marsh, A. Tessema, **A. Kidane**, Morgan Stefik, Bruce L. Anneaux, and Harry J. Ploehn, Effect of Nanodiamond Surface Functionalization on the Properties of Nanodiamond /PEEK Composites, *IEEE Transactions on Components, Packaging and Manufacturing Technology* DOI: 10.1109/TCPMT. 2016. 2646671, **2017**. (Impact Factor 2.04)
48. B. Koohbor, **A. Kidane**, Michael A. Sutton, Analysis of Dynamic Bending Test Using Ultra High-Speed DIC and the Virtual Fields Method, *International Journal of Impact Engineering*, 110: 299-310, **2017**. (Impact Factor 3.642)
49. A. Tessema, D. Zhao, J. Moll, S. Xu, R. Yang, C. Li, SK. Kumar, **A. Kidane**, Effect of filler loading, geometry, dispersion and temperature on thermal conductivity of polymer nanocomposites, *Polymer Testing* 57: 101-106, **2017**. (Impact Factor 3.275)
50. S. Ravindran, B. Koohbor, **A. Kidane**, Experimental Characterization of Meso-Scale Deformation Mechanisms and the RVE Size in Plastically Deformed Polycrystalline Materials, *Strain*, 53(1): e12217, **2017**. (Impact Factor 1.313)
51. G. Valeri, B. Koohbor, **A. Kidane**, M. A. Sutton, Determining the tensile response of materials at high temperature using DIC and the Virtual Fields Method, *Optics and Lasers in Engineering*, 91: 53-61, **2017**. (Impact Factor 4.273)
52. B. Koohbor, S. Ravindran, **A. Kidane**, Experimental Determination of the Length Scales of Representative Volume Element (RVE) in Woven Composites, *Optics and Lasers in Engineering*, 90: 59-71, **2017**. (Impact Factor 4.273)
53. B. Koohbor, **A. Kidane**, W-Y Lu, Effect of Specimen Size, Compressibility, and Inertia on the Response of Rigid Polymer Foams Subjected to High-Velocity Direct Impact Loading", *International Journal of Impact Engineering*, 98: 62-74, **2016**. (Impact Factor 3.642)
54. B. Koohbor, **A. Kidane**, W. LU, Characterizing the constitutive response and energy absorption of rigid polymeric foams subjected to intermediate-velocity impact, *Polymer Testing* 54: 48-58, **2016**. (Impact Factor 3.275)

55. B. Koohbor and **A. Kidane**, Design and Topology Optimization of Continuously and Discretely Graded Foam Materials for Efficient Energy Absorption, *Materials and Design*, 102: 151–161, **2016**. (Impact Factor 6.289)
56. S. Ravindran, A. Tessema, **A. Kidane**, Note: Dynamic mesoscale full-field surface deformation measurement of heterogeneous materials, *Review of Scientific Instrumentation*, 87 (3): 036108, **2016**. (Impact Factor 1.578)
57. B. Koohbor, S. Ravindran, **A. Kidane**, Meso-scale study of non-linear tensile response and fiber trellising mechanisms in woven composites, *Journal of Reinforced Plastics and Composites*, 35(12): 986-995, **2016**. (Impact Factor 1.188)
58. B. Koohbor, **A. Kidane**, W. L.U., M. A. Sutton, Investigation of the Dynamic Stress-Strain Response of Compressible Polymeric Foam Using non-parametric analysis, *International Journal of Impact Engineering*, 91: 170–182, **2016**. (Impact Factor 3.642)
59. S. Ravindran, A. Tessema, **A. Kidane**, Local deformation and failure mechanisms of polymer bonded energetic materials subjected to high strain rate loading, *Journal Dynamic Behavior of Materials*, 2(1): 146-156, **2016 (best paper award)**. (Impact Factor 2.289)
60. Zhou, B., Shazly, T., Ravindran, S., Ferdous, J., **Kidane, A.**, Sutton, M. A. Using Digital Image Correlation to Characterize Local Strains on Vascular Tissue Specimens. *Journal of Visualized Experiments*, 107: e53625, **2016**. (Impact Factor 1.2)
61. S. Mallon, B. Koohbor, **A Kidane**, A. P. Reynolds, On the effect of microstructure on the torsional response of AA7050T-7651 at elevated strain rates, *Materials Science & Engineering, A* 639: 280–287, **2015**. (Impact Factor 4.652)
62. B. Koohbor, S. Mallon, **A. Kidane**, A. Anand, V. Parameswaran, Through thickness elastic profile determination of functionally graded materials, *Experimental Mechanics*, 55(8): 1427-1440, **2015**. (Impact Factor 2.496)
63. B. Koohbor, S. Mallon, **A. Kidane**, W Y Lu, The Deformation and Failure Response of Closed-Cell PMDI Foams Subjected to Dynamic Impact Loading, *Polymer Testing*, 44: 112–124, **2015**. (Impact Factor 3.275)
64. B. Koohbor, S. Ravindran, **A. Kidane**, Meso-scale strain localization and failure response of an orthotropic woven glass-fiber reinforced composite, *Composites Part B*, 78: 308-318, **2015**. (Impact Factor 7.635)
65. S. Mallon, B. Koohbor, **A. Kidane**, M. Sutton, Fracture behavior of prestressed composites subjected to shock loading: a DIC-based study, *Experimental Mechanics* 55: 211–225, **2015**. (Impact Factor 2.496)
66. B. Koohbor, **A. Kidane**, S. Mallon, Effect of elastic properties of material composition on the fracture response of transversely graded ceramic /metal material, *Materials Science & Engineering A*, 619: 281–289, **2014**. (Impact Factor 4.652)

67. B. Koohbor, S. Mallon, **A. Kidane**, Michael Sutton, A DIC-based study of in-plane mechanical response and fracture of orthotropic carbon fiber reinforced composite, *Composites: Part B*: 66: 388–399, **2014**. (Impact Factor 7.635)
68. J. Yu and **A. Kidane**, Modeling of Functionally Graded Materials Containing Multiple Heterogeneities, *Acta Mechanica*, 225, (7): 1931-1943, **2014**. (Impact Factor 2.102)
69. **A. Kidane**, On the Failure and Fracture of Polymer Foam Containing Discontinuities, *ISRN Materials Science*, vol. 2013, Article ID 408596, 9 pages, doi:10.1155/2013/408596, **2013**.
70. J. Yu and **A. Kidane**, Acoustic properties of composites containing multiple heterogeneities: micromechanics modeling, *Int. J. Theoretical and Applied Multiscale Mechanics*, 2 (4): 271 – 286, **2013**.
71. **A. Kidane**, A. Lashgari, B. Li, M. McKerns, M. Ortiz, H. Owhadi, G. Ravichandran, M. Stalzer, T.J. Sullivan, Rigorous model-based uncertainty quantification with application to terminal ballistics, Part I: Systems with controllable inputs and small scatter, *J. Mech. Phys. Solids*, 60: 983–1001, **2012**. (Impact Factor 5.000)
72. D. Rittel, **A. Kidane**, M. Alkhader, A. Venkert, P. Landau, G. Ravichandran, On the dynamically stored energy of cold work in pure single crystal and polycrystalline copper, *Acta Materialia*, 60: 3719–3728, **2012**. (Impact Factor 7.656)
73. S. Abotula, **A. Kidane**, V. Chalivendra, A. Shukla, Dynamic curving cracks in functionally graded materials under thermo-mechanical loading, *International Journal of Solids and Structures* 49: 1637–1655, **2012**. (Impact Factor 3.213)
74. B. Li, **A. Kidane**, G. Ravichandran, M. Ortiz, Verification and validation of the Optimal Transportation Mesh-free (OTM) simulation of terminal ballistics, *Inter. J. of Impact Engineering*, 42: 25-36, **2012**. (Impact Factor 3.642)
75. **A. Kidane**, V. Chalivendra, A. Shukla, and R. Chona, Mixed-mode dynamic crack propagation in graded materials under thermo-mechanical loading, *Eng. Fracture Mechanics*, 77(14): 2864-2880, **2010**. (Impact Factor 3.426)
76. **A. Kidane**, V. Chalivendra, A. Shukla, Thermo-Mechanical Stress Fields, and Strain Energy associated with a Mixed-Mode Propagating Crack, *Acta Mechanica*, 215: 57–69, **2010**. (Impact Factor 2.289)
77. **A. Kidane** and A. Shukla, Quasi-Static and Dynamic Fracture Initiation Toughness of Ti/TiB Layered Functionally Graded Material under Thermo-Mechanical Loading, *Engineering Fracture Mechanics*, 77: 479-491, **2010**. (Impact Factor 3.426)
78. **A. Kidane** and A. Shukla, Dynamic Constitutive Behavior of Ti/TiB FGM under Thermo-Mechanical Loading, *Journal of Materials Science*, 43 (8): 2771-2777, **2008**. (Impact Factor 3.553)

79. N. K. Naik, **Addis Asmelash**, Venkatshwarra, V. Raju, Interlaminar Shear Properties Of Polymer Matrix Composites: Strain Rate Effect, *Mechanics of Materials*, 39: 1043-1052, **2007**. (Impact Factor 2.993)
80. N.k. Naik, D. Sitpal, Venkateswara Rao Kavala, **Addis Asmelash**, Compressive Split-Hopkinson Bar Apparatus: Part I: Design and Development, *J. of Aero. Scie. and Tech.*, 59(2): 77-86, **2007**. (Impact Factor 1.232)
81. N.k. Naik, D. Sitpal, Venkateswara Rao Kavala, **Addis Asmelash**, Compressive Split Hopkinson Bar Apparatus: Part II; Experimental Result, *J. of Aero. Scie. and Tech.*, 59 (2): 87-10, **2007**. (Impact Factor 1.232)

Refereed Conference Proceedings

1. Ali, F. Fahem, Vijendra Gupta, Addis Kidane, and A. Sutton Michael. "Determination of Mixed-Mode (I/III) Fracture of Polycarbonate." In *Fracture, Fatigue, Failure and Damage Evolution*, Volume 3, pp. 77-83. River Publishers, 2025.
2. Kidane, Addis, Suraj Ravindran, Georgios Gavriss, and Waiching Sun. "Effect of Thermal and Mechanical Fatigue Loading on the Performance of Energetic Materials." In *Dynamic Behavior of Materials*, Volume 1, pp. 55-59. River Publishers, 2025..
3. Fahem, Ali Fahad, Achyuth Thumbalam Guthai, Addis Kidane, and Raman P. Singh. "Investigation of Dynamic Fracture Mechanism of a Bonding Adhesive Using a Novel Spiral Metal-Cohesive Specimen." In *SEM Annual Conference and Exposition on Experimental and Applied Mechanics*, pp. 93-99. Cham: Springer Nature Switzerland, 2024.
4. V. Gupta, **A. Kidane**. "Data-Driven Methodology to Extract Stress Fields in Materials Subjected to Dynamic Loading." *Society for Experimental Mechanics Annual Conference and Exposition*, pp. 97-102. Cham: Springer Nature Switzerland, 2023.
5. V. Gupta, **A. Kidane**, M.A Sutton. Additive Manufacturing of Graded Voronoi Cellular Structures for Increased Design Flexibility. In *Thermomechanics & Infrared Imaging, Inverse Problem Methodologies and Mechanics of Additive & Advanced Manufactured Materials*, Volume 6: *Proceedings of the 2022 Annual Conference on Experimental and Applied Mechanics*, pp. 69-74. Cham: Springer International Publishing, 2023.
6. V. Gupta, **A. Kidane**, M.A. Sutton. Density-Graded 3D Voronoi Cellular Structures for Improved Impact Performance. In *Dynamic Behavior of Materials*, Volume 1: *Proceedings of the 2022 Annual Conference on Experimental and Applied Mechanics*, pp. 123-128. Cham: Springer International Publishing, 2022.
7. C. Onwuka, V. Gupta, M. A. Sutton, **A. Kidane**. Effect of Crystal Size on the Failure Mechanics of Polymer-Bonded Explosives. In *Dynamic Behavior of Materials*, Volume 1: *Proceedings of the 2022 Annual Conference on Experimental and Applied Mechanics*, pp. 77-83. Cham: Springer International Publishing, 2022.

8. **A. Kidane, S. Ravindran, C. Onwuka, M.A. Sutton**, Deformation mechanisms and shock propagation in polymer particulate composites: Experimental study based on high speed visual and infrared imaging—Bulletin of the American Physical Society, 67, 2022.
9. **V. Gupta, C. Onwuka, A. Kidane**, and M. A. Sutton, Effect of Impact Velocity on Dynamic Response of Polymeric Foams, In Dynamic Behavior of Materials, Volume 1, pp. 73-78. Springer, Cham, 2022.
10. **A. Fahem, V. Gupta, A. Kidane**, and M. A Sutton. "Determination of Mixed-Mode (I/III) Fracture of Polycarbonate." In Fracture, Fatigue, Failure and Damage Evolution, Volume 3, pp. 77-83. Springer, Cham, 2021.
11. **V. Gupta, D. Miller, A. Kidane** and M. A. Sutton, Optimization for improved energy absorption and the effect of density gradation in cellular materials, In Mechanics of Biological Systems and Materials & Micro-and Nanomechanics & Research Applications, pp. 13-20. Springer, Cham, 2021.
12. **D. Miller, V. Gupta, A. Kidane**, M. A. Sutton, The Response of Symmetrically Graded Foam Subjected to Intermediate and High Dynamic Loadings, Proceedings of the 2020 Annual Conference on Experimental and Applied Mechanics.
13. S. Rajan, M. A Sutton, R. Wehbe, B. Tatting, Z. Gürdal, **A. Kidane**, R. Harik, Curvilinear Paths, Advancements in Optical Methods & Digital Image Correlation in Experimental Mechanics, Volume 3 pp 9-12, 2020
14. **D. Miller, V. Gupta, A. Kidane**, Dynamic Response of Layered Functionally Graded Polyurethane Foam with Nonlinear Density Variation Dynamic Behavior of Materials, Volume 1, 25-30, 2020
15. **V. Gupta, D. Miller, A. Kidane**, Numerical and Experimental Investigation of Density Graded Foams Subjected to Impact Loading, Dynamic Behavior of Materials, Volume 1, 31-35, 2020
16. S Boubanga Tombet, **S. Ravindran, A. Kidane**, F Marcotte, High-Speed Infrared investigations of local heating in a Graphite-Fiber-PDMS Composite Material Under dynamic loading., Bulletin of the American Physical Society, 2019
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19. **A. Wohlford, S. Ravindran, A. Kidane**, Energy Absorption Characteristics of Graded Foams Subjected to High-Velocity Loading, Dynamic Behavior of Materials, Volume 1, 229-232, 2019
20. **S. Ravindran, A. Tessema, A. Kidane**, On the Response of Polymer Bonded Explosives at Different Impact Velocities, Dynamic Behavior of Materials, Volume 1, 219-224, 2019
21. **P. Malchow, S. Ravindran, A. Kidane**, Localized Microstructural Deformation Behavior of Dynamically Deformed Pure Magnesium, Dynamic Behavior of Materials, Volume 1, 225-228, 2019

22. S. Ravindran, S Sockalingam, **A Kidane**, M Sutton, B Justusson, J Pang, High Strain Rate Response of Adhesively Bonded Fiber-Reinforced Composite Joints: A Computational Study to Guide Experimental Design, *Dynamic Behavior of Materials*, Volume 1, 157-162
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24. A. Tessema, S. Ravindran, **A. Kidane**, Damage Evolution and Local Strain Redistribution in Composite Laminate with Various Fiber Arrangements *Fracture, Fatigue, Failure and Damage Evolution*, Volume 6, 97-102, 2019, Springer, Cham
25. A. Fahem, **A. Kidane**, A progression on the determination of dynamic fracture initiation toughness using spiral crack *Fracture, Fatigue, Failure, and Damage Evolution*, Volume 6, 89-95, 2019, Springer, Cham
26. A. Tessema, A. Wohlford, S. Ravindran, **A. Kidane**, Free-Edge Strain Localization of Cross-Ply Laminates with Different Lamina Arrangements, *American Society of Composites (ASC) Proceedings*, 2017
27. K. Kodagali, **A. Kidane**, A. Tessema, Progressive Failure Analyses of a Single Layer Composite lamina using Puck Failure Criterion, *American Society of Composites (ASC) Proceedings*, 2017
28. A. Tessema, S. Ravindran, A. Wohlford, **A. Kidane**; In-Situ Observation of Damage Evolution in Quasi-Isotropic CFRP Laminates *Fracture, Fatigue, Failure and Damage Evolution*, Volume 7, 67-72, 2018, Springer, Cham
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33. S. Ravindran, P. Malchow, A. Tessema, **A. Kidane**, Multiscale deformation behavior of polymer bonded explosives subjected to intermediate velocity impact, *AIP Conference Proceedings* 1979, 180008 (2018); doi: 10.1063/1.5045041
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44. A. Tessema, S. Ravindran, **A. Kidane**, Experimental Investigation on Correlation between Damage and Thermal Conductivity on CFRP, American Society of Composites (ASC) Proceedings, 2016
45. B. Koohbor, G. Valeri, **A. Kidane**, and M. A Sutton. "Thermo-mechanical Properties of Metals at Elevated Temperatures." In Advancement of Optical Methods in Experimental Mechanics, Volume 3, pp. 117-123. Springer International Publishing, 2016,

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53. B. Koohbor, **A. Kidane**, W.Y Lu, Dynamic Compressive Response of Polymeric Foams Subjected to Direct Impact Loading." American Society of Composites-30th Technical Conference, ASC Proceedings 2015.
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63. J. Yu, **A. Kidane**, Classical Micromechanics Modeling of Functionally Graded Materials Containing Multiple Heterogeneities, *American Society of Composites*, 2013.
64. N. Zohhadi, N. Aich, F. Matta, N. Saleh, P. Ziehl and **A. Kidane**, Graphene Nanoreinforcement for Cement-based Composites, 4th *Advances in Cement-based Materials: Characterization, Processing, Modeling, and Sensing*, July 8-10, 2013, Urbana, IL
65. Jy-An Wang, **A. Kidane**, A new approach to determine the quasi-static and dynamic fracture toughness of engineering Materials, *Dynamic Behavior of Materials, Proceedings of the Society for Experimental Mechanics Series*, Volume 1, 545-551, 2013.
66. **A. Kidane**, G. Ravichandran, Dynamic Fracture of Sandwich Core Foams, *The 26th ASC Annual Technical Conference (the Second Joint US-Canada Conference on Composites September 26-28, 2011, Montreal, Canada.)*, Page 1246, 2012.
67. **A. Kidane**, G. Ravichandran, Static and Dynamic Failure and Fracture Behavior of Polymer Foam Core, *The 18th International Conference on Composite Materials*, August 21-26, 2011, Jeju Island, Korea
68. **A. Kidane**, G. Ravichandran, Failure and Fracture Behavior of Brittle Polymer Foam, *Experimental and Applied Mechanics, Conference Proceedings of the Society for Experimental Mechanics Series*, Volume 6, 91-98, 2011.

69. **A. Kidane**, V. Chalivendra and A. Shukla, Effect of temperature and crack tip velocity in the crack growth direction in graded materials” Dynamic Behavior of Materials, Conference Proceedings of the Society for Experimental Mechanics Series Volume 1, 113-120, 2011.
70. B. Li, **A. Kidane**, G. Ravichandran, M. Ortiz, The Optimal Transportation Meshfree Method for Ballistic Impact Simulation’, IMPLAST 2010 SEM 2010 Fall Conference, Renaissance Providence Hotel, October 12-14, 2010 Providence, Rhode Island USA
71. **A. Kidane**, G. Ravichandran, the Failure behavior of foam core with cracks, notches, and circular holes, Proceedings of the 9th International Conference on Sandwich Structures ICSS 9, June 14-16, 2010, California Institute of Technology, Pasadena, California 91125, USA
72. **A. Kidane**, A. Shukla, Static and Dynamic Constitutive Behavior and Fracture of Titanium Based FGM under Thermo-Mechanical Loading, Proceedings of the SEM Annual Conference and Exposition on Experimental and Applied Mechanics, June 1-4, 2009, Albuquerque, New Mexico, USA.
73. **A. Kidane**, A. Shukla, Effect of temperature on the dynamic constitutive behavior of functionally graded materials, Proceedings SEM Annual Conference and Exposition on Experimental and Applied Mechanics, June 2-5, 2008, Orlando, Florida.
74. **A. Kidane**, V. Chalivendra and A. Shukla, Effect of temperature on the dynamic crack tip stress field on FGM, Proceedings of SEM XI Annual Conference and Exposition on Experimental and Applied Mechanics, June 2-5, 2008, Orlando. Florida.
75. K. Ho Lee, **A. Kidane**, V. Parameswaran, and A. Shukla, Dynamic crack propagation in transparent functionally graded material, Proceeding of SEM Annual Conference and Exposition on Experimental and Applied Mechanics, June 4-6, 2007, Springfield, MA, 2008
76. N. K. Naik and **Addis Asmelash**, Effect of Strain Rate on Shear Behavior of Composites, SEMproceedings, 2005 SEM Annual Conference on Experimental Mechanics, Portland Marriott Portland, OR, June, 7-9, 2006.
77. N.K Naik, **Addis Asmelash** and D. Sitpal, Behavior of composite materials under high strain rate loading, Proceedings of IMECE 2005: ASME International mechanical engineering congress and expositions, Florida, November 5-11, 2005
78. **Addis Asmelash** and N.K. Naik, Interlaminar shear properties of plain weave E-glass / epoxy and Twill weave carbon/epoxy under high strain rate loading: Effect of strain rate, International conference on computational and experimental mechanics, Proceedings of ICCES 2005.
79. N. K. Naik and **A. K. Addis** Mechanical behavior of composites at high strain rate shear loading, Proceeding of ICTACEM 2004: Third international conference on theoretical, applied, computational and experimental mechanics, December 28-30, 2004.

Conference Presentations

1. Celebrating a Legacy of Global Friendships: The Experience of an Ethiopian Cohort, 44th Annual Conference, "Fulbright at 75: Celebrating a Legacy of Global Friendships", October 20-23, 2021. Virtual.
2. Local Full Field Information for Understanding Materials Response Subjected to Extreme Conditions, International Conference on Digital Image Correlation and Noncontact Experimental Mechanics, October 15-18, 2018, Hangzhou, China
3. Local deformation behavior of pure magnesium under dynamic loading, BSSM 13th International Conference on Advances in Experimental Mechanics University of Southampton, UK, August 29-31, 2018.
4. In-situ quantification of intra and intergranular local deformation in magnesium using full-field measurements at various time scales, International Conference on Plasticity, Damage, and Fracture InterContinental San Juan, Puerto Rico, January 2-7, 2018
5. Meso-scale strain measurement of heterogeneous materials under dynamic loading, BSSM 12th International Conference on Advances in Experimental Mechanics University of Sheffield, Sheffield, UK, August 29, 2017
6. Experimental Investigation on the Effect Ply Angle on the Free-edge Interlaminar Strains CFRP Laminate, 20th International Conference on Composite Structures, Conservatoire National des Arts et métiers (CNAM), Paris, France, September 4-7, 2017
7. Experimental observation of multiscale deformation in heterogeneous materials subjected to impact loading, 14th U.S. National Congress on Computational Mechanics (USNCCM14), the Palais des Congrès de Montréal, QC, Canada, July 17-20, 2017.
8. Deformation of Polymer Based Heterogeneous Materials under Direct Impact Loading, IMECE International Mechanical Engineering Congress & Exposition, Tampa Convention Center, Tampa, Florida, November 6, 2017.
9. Fracture in Functionally Graded Materials, Award Lecture, ASME 2016 International Mechanical Engineering Congress & Exposition, November 11-27, Phoenix, AZ,
10. Thermo-Mechanical Properties of Metals at Elevated Temperatures, SEM 2015,
11. A Novel 3D Full-Field Deformation Measurement at a Temperature Higher than 1000 °C, ASME 2014 International Mechanical Engineering Congress & Exposition, November 14-20, Montreal, Canada
12. Use of shock tube to determine the dynamic fracture behavior of engineering materials, Joint conference, Society of Engineering Science 50th annual technical meeting and ASME-AMD Summer meeting, Brown, Providence RI. June 28-31, 2013.
13. Functionally Graded Particle Reinforced Composites for Transducer Backings ASME 2012 International Mechanical Engineering Congress & Exposition, November 15-21, 2013, Sandi ago

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14. Integrated Ultra-High-Speed 3D Computer Vision for Dynamic Fracture Of Functionally Graded Materials, ASME 2013 International Mechanical Engineering Congress & Exposition, November 15-21, 2013, San Diego, CA
15. Classical Micromechanics Modeling of Functionally Graded Materials Containing Multiple Heterogeneities, American Society of Composites, 2013.
16. A New Method for Dynamic Fracture Toughness Determination Using Torsion Hopkinson Pressure Bar” Dynamic Behavior of Materials, Proceedings of the Society for Experimental Mechanics Series, Volume 1, pp 307-312, 2014.
17. A new approach to determine the quasi-static and dynamic fracture toughness of engineering Materials, Dynamic Behavior of Materials, Proceedings of the Society for Experimental Mechanics Series, Volume 1, 545-551, 2013.
18. The Role of Cracks and Defects on the Thermal Transport Properties of Bi-phase Materials, ASME 2012 International Mechanical Engineering Congress & Exposition, November 9-15, 2012, Houston, Texas.
19. Dynamic Fracture of Sandwich Core Foams, The 26th ASC Annual Technical Conference (the Second Joint US-Canada Conference on Composites), September 26-28, 2011, Montreal, Canada.
20. Static and Dynamic Failure and Fracture Behavior of Polymer Foam Core, The 18th International Conference on Composite Materials, August 21-26, 2011, Jeju Island, Korea
21. Failure and Fracture Behavior of Brittle Polymer Foam, Experimental and Applied Mechanics, Conference Proceedings of the Society for Experimental Mechanics Series, Volume 6, 91-98, 2011.
22. The Optimal Transportation Meshfree Method for Ballistic Impact Simulation’, IMPLAST, 2010 SEM 2010 Fall Conference, Renaissance Providence Hotel, October 12-14, 2010, Providence, Rhode Island USA
23. Failure behavior of foam core with cracks, notches, and circular holes”, 9th International Conference on Sandwich Structures ICSS 9, June 14-16, 2010, California Institute of Technology, Pasadena, California 91125, USA
24. Effect of temperature and crack tip velocity in the crack growth direction in graded materials, Dynamic Behavior of Materials, Conference Proceedings of the Society for Experimental Mechanics Series Volume 1, 113-120, 2011.
25. Static and Dynamic Constitutive Behavior and Fracture of Titanium-Based FGM under Thermo-Mechanical Loading, SEM Annual Conference and Exposition on Experimental and Applied Mechanics, June 1-4, 2009, Albuquerque, New Mexico, USA.
26. Dynamic Fracture Initiation Toughness and failure of Ti/TiB FGM Under Thermo-Mechanical Loading Student paper competition, SEM Annual Conference and Exposition on Experimental and Applied Mechanics, June 1-4, 2009, Albuquerque, New Mexico, USA.

27. Dynamic constitutive behavior and fracture toughness of Ti/TiB FGM under thermomechanical loading, Proceedings of the International Symposium on Advances in Mechanics, Materials and Structures, China 2008.
28. Effect of temperature on the dynamic constitutive behavior of functionally graded materials, SEM Annual Conference and Exposition on Experimental and Applied Mechanics, June 2-5, 2008, Orlando, Florida.
29. Effect of temperature on the dynamic crack tip stress field on FGM, SEM XI Annual Conference and Exposition on Experimental and Applied Mechanics, June 2-5, 2008, Orlando, Florida.
30. Dynamic crack propagation in transparent functionally graded material, SEM Annual Conference and Exposition on Experimental and Applied Mechanics, June 4-6, 2007, Springfield, MA.

Invited Workshops, Conferences, and Symposium Talks

31. Optimally Graded Cellular Materials to Mitigate Impact Loading, Mechanics of Materials in Extreme Environments, AMERIMECH SYMPOSIUM, Brown University, 2025
32. Optimal Density Graded Cellular Materials to Mitigate Shock and Impact Loading Connecting lessons from DPML, Material, and structures under extreme loading conditions, Symposium in honor of Arun Shukla's 70th birthday, The University of Rhode Island RI, October 7, 2023
33. Digital Image-based experimental mechanics to understand materials response under extreme conditions, Machine Learning in Science and Engineering, Conference, Columbia University, December 15, 2020.
34. Stereo-DIC to Investigate the Constitutive Response of Low Impedance Materials Subjected to High Strain Rate Loading, IDICS meeting, 2015
35. Dynamic Fracture in Pre-Stressed Composites, Dynamic Symposium on "Performance of Materials and Structures under Extreme Loading Conditions" In honor of Professor Arun Shukla's 60th Birthday, University of Rhode Island, Kingston, RI.
36. Use of shock tube to determine the dynamic fracture behavior of engineering materials" Joint conference, Society of Engineering Science 50th annual technical meeting and ASME-AMD Summer meeting, Brown, Providence RI. June 28-31, 2013.
37. Motion and Velocity Measurements in Viscous Fluids Undergoing Processes Mimicking Friction Stir Extrusion, Dynamic Symposium on "Performance of Materials and Structures under Extreme Loading Conditions" In honor of Professor Arun Shukla's 60th Birthday, Kingston, RI.
38. Experimental Study of Thin Composites Undergoing Large Deformations in Combined Bending-COMPRESSION Loading, ASME 2012 International Mechanical Engineering Congress & Exposition James W. Dally Symposium for ASME Drucker Medal, Houston, Texas 2012.
39. Mechanics of Advanced Materials at Different Time and Length Scales, Poster presentation, 2011 CAREER Award Regional Forum, Louisiana State University, November 7-9, 2011

Academic Invited Seminars

1. Current experimental approach to understanding materials response under extreme conditions, Engineering Division, New York University, Abu Dhabi, April 12, 2022.
2. Mechanics of materials under extreme environments using digital image-based experiments, Department of Civil Engineering and Engineering Mechanics, Columbia University, January 29, 2021.
3. Mechanics of materials at extreme conditions: digital image correlation-based approach, Carnegie Mellon University, November 20, 2020.
4. Using Digital Images to Understand the Failure Mechanisms of Engineering Materials Applications to Mechanical and Civil Engineering Materials Bahir Dar Institute of Technology, Bahir Dar, Ethiopia October 18, 2019.
5. Understanding the Failure Mechanisms of Engineering Materials Using Digital Image Applications to Mechanical and Civil Engineering Materials, Addis Ababa Institute of Technology, Addis Ababa, Ethiopia, March 5, 2019.
6. Local deformation heterogeneity in materials under dynamic loading and meso-scale approach, School of Aeronautics and Astronautics, Purdue University, November 6, 2018
7. Mechanics of Materials at Extreme Conditions: The effect of strain rate and meso-scale approach, University of Maryland, College Park, February 7, 2018
8. Direct impact response of cellular and polymer-based soft materials at high strain rate loading, University of Nevada, Las Vegas, November 18, 2016
9. Deformation mechanisms of cellular and polymer-based soft materials subjected to impact and shock loading: A Digital Image-Based Approach, University of North Carolina Charlotte, October 20, 2016
10. Vision-based experiments to quantify the multiscale deformation mechanisms of heterogeneous materials subjected to different loading conditions, Department of Mechanical Engineering, University of Iowa, Iowa City, IA, March 26, 2015.
11. Mechanics of materials at the extreme environment, at different time and length scales: A Digital Image-Based Approach, Department of Mechanical Engineering, University of Southern California, Los Angeles, C.A., November 5, 2014.
12. Dynamic Thermo-Mechanical Behavior of Functionally Graded Materials, Department of Mechanical Engineering, Department of Mechanical Engineering, Manhattan College, New York, February 28, 2011
13. Dynamic Thermo-Mechanical Behavior of Functionally Graded Materials, Department of Mechanical Engineering, University of South Carolina, Columbia, SC, November 29, 2010.

National Laboratories Invited Seminars

14. Meso-macro scale digital image-based experiments to understand materials subjected to extreme conditions, Army Research Laboratory, Aberdeen Proving Ground, MD, January 11, 2017.
15. Quantify the multiscale deformation mechanisms of heterogeneous materials subjected to different loading conditions, Air Force Research Laboratory (AFRL) Eglin Fl, 05/04/2015.
16. On the Failure and Fracture of Engineering Materials Subjected to Dynamic Loading and High Temperature, Sandia National Laboratory, Livermore, CA, 05/31/2012

STUDENT AND POSTDOCTORAL SCHOLAR ADVISED

Postdoctoral scholar

- James Yu, Postdoctoral Scholar (06/2012-04/30/2013)
 - Current: Senior Research Scientist, Korea Institute of Science and Technology

Ph. D

- Yohannes Mulu Birhan, Ph.D. Student (01/2025 – present)
 - Current student
- Vijendra Gupta, Ph.D. (01/2018-12/2024)
 - Current: Ansys, Sacramento, California
- Ali Fahem, Ph.D. (08/2013 – 08/2019)
 - Current: Postdoctoral Scholar, Oklahoma State University
- ❖ Suraj Ravindran, Ph.D. (08/2013 – 10/2018)
 - Current: Assistant Professor, Aerospace Engineering and Mechanics, University of Minnesota
- Addis Tessema, Ph.D. (08/2013 – 08/2018)
 - Current: Composite Engineer, TPI Composites Inc
- Behrad Koobhor, Ph.D. (01/2013 – 08/2016)
 - Current: Assistant Professor, Department of Mechanical Engineering, Rowan University

M.S

- ❖ Dennis Miller, M.S. student (08/2018-08/2021)
- ❖ Chizoba Onwuka, M.S (01/2019-08/2021)
- ❖ Abigail Wohlford M.S (08/2016 –08/2018)
- ❖ Peter Malchow, M.S. (08/2015-11/2017)
- ❖ Ronak Patel M.E(08/2016-08/2017)
- ❖ Karan Kodagali, M.S (08/2014 – 11/2017)
- ❖ Guillermo Valeri Paoli M. S (01/2015 – 08/2016)
- ❖ Silas Mallon, M.S. (01/2013 - 08/2014)

Undergraduate Student

- ❖ Kurt Boone, 04/01/2026- present Architecture materials under impact loading
- ❖ Joel Montano, 01/01/2026- present Engineering materials under impact
- ❖ Olivia Gilbert 01/2023- 02/2025 Frozen soil under dynamic loading
- ❖ Johnny Lee 07/2024- 09/2024 Materials for protection
- ❖ Gary Huneault 01/2012- 05/2012 Compressive Hopkinson pressure bar
- ❖ Silas Mallon 01/2012- 12/2012 Torsional Hopkinson bar, Shock tube
- ❖ Matthew Williamson 01/2014- 08/2014 High-temperature DIC
- ❖ Corbin Collier 01/2014- 04/2014 Quasi-static compression
- ❖ Garrett Abernethy 01/2015- 04/2015 High-strain dynamic loading
- ❖ Ronak Patel 01/2015- 05/2016 Shock tube loading
- ❖ Abigail Wohlford 07/2015-05/2016 High-temperature materials
- ❖ Nicholas Myers 07/2015-05/2016 Composite materials
- ❖ Burton Kotti 01/2017-2018 Tensile SHPB
- ❖ Dennis Miller, 01/2018- 08/2018 High-Temperature deformation in metals

PROFESSIONAL SYNERGISTIC ACTIVITIES

Member of Editorial Board

Associate Editor; Mechanics of Materials, Jan 2021- present

Professional Membership

- ❖ Society of Experimental Mechanics (SEM), (2007-present)
- ❖ American Society of Composites (ASC) (2011-present)
- ❖ American Society of Mechanical Engineers (ASME) (2011-present)
- ❖ American Society of Civil Engineers (ASCE)