

# Harish Chander, Ph.D.

Associate Professor of Biomechanics  
 Co-Director of the Neuromechanics Laboratory  
 Department of Kinesiology, Mississippi State University  
 216 McCarthy Building, PO Box 6186, Mississippi State, MS 39762  
 Phone: 662-202-7977; Email: [hchander@colled.msstate.edu](mailto:hchander@colled.msstate.edu); [hc783@msstate.edu](mailto:hc783@msstate.edu)



**MISSISSIPPI STATE UNIVERSITY™**  
**NEUROMECHANICS LABORATORY**  
 Human Performance & Ergonomics

*My research centers on the application of principles of neuromechanics & ergonomics to human performance, injury prevention and safety promotion. My research efforts are focused in areas of human factors in ergonomics, athletics, clinical, geriatric, pediatric and daily living populations, with special emphasis in postural stability, gait, slips, trips, falls and fall prevention, attempting to minimize injuries while promoting safety and enhancing efficient human performance.*

**Education:**

Doctor of Philosophy (PhD)  
 Master of Science (MS)  
 Bachelor of Physical Therapy (BPT)

Health & Kinesiology, Biomechanics, University of Mississippi, 2014  
 Health & Kinesiology, Biomechanics, University of Mississippi, 2012  
 Physical Therapy, The T.N. MGR Medical University, 2008

**Employment:**

2020 – Present

Associate Professor of Biomechanics (Tenured) & Level I Graduate Faculty  
 Co-Director of the Neuromechanics Laboratory  
 Department of Kinesiology, Mississippi State University

2018 – Present

Affiliated Faculty Researcher, Human Factors & Athlete Engineering, Center for Advanced Vehicular Systems (CAVS)

2014 – 2020

Assistant Professor of Biomechanics (Tenure-Track) & Level I Graduate Faculty  
 Co-Director of the Neuromechanics Laboratory

2016 – 2019

Department of Kinesiology, Mississippi State University  
 Adjunct Research Assistant Professor, Department of Health, Exercise Science, and Recreation, The University of Mississippi

2010 – 2014

Graduate Teaching Assistant, Department of Health, Exercise Science, and Recreation, The University of Mississippi

2008 – 2009

Physical Therapist, Talwalkars Better Value Fitness Pvt. Ltd, Chennai, India

2007 – 2009

Home Care Physical Therapist, Chennai, India

2007 – 2008

Pediatric Physical Therapist, Vinayaga Physio Point, Chennai, India

**RESEARCH**

**Research Publications - Peer-Reviewed:**

	<i>Published</i>	<i>In-Review</i>	<i>In-Preparation</i>
<i>Journal Articles</i>	101	5	5
<i>Conference Proceedings &amp; Presentations</i>	149	-	6
<i>Textbook Chapters</i>	1	-	1
<i>Textbook</i>	1	-	-

For full list of publications: <https://scholar.google.com/citations?user=zgC6K2wAAAAJ&hl=en&oi=ao>

**Research Metrics:**

<i>H-Index</i>	19
<i>I-10 Index</i>	40

**Published/In-Press:** († Indicates primary student mentored project)

1. † Derby, H.; Conner, N.O.; Talukder, A.; Griffith, A.; Freeman, C.; Burch, R.; Simpson, J.D.; Goble, D.J.; Knight, A.C.; **Chander, H.** (2022). Impact of Sub-Clinical and Clinical Compression Socks on Postural Stability Tasks among Individuals with Ankle Instability. *Healthcare*, 10, 1271. <https://doi.org/10.3390/healthcare10071271>
2. **Chander, H.**, Freeman, H. R., Hill, C. M., Hudson, C. R., Kodithuwakku Arachchige, S. N., Turner, A. J., ... & Knight, A. C. (2022). The Walls Are Closing in: Postural Responses to a Virtual Reality Claustrophobic Simulation. *Clinical and Translational Neuroscience*, 6(2), 15. <https://doi.org/10.3390/ctn6020015>
3. † Talukder, A., Derby, H., Freeman, C., Burch, R., Knight, A., & **Chander, H.** (2022). Sensory and Tactile Comfort Assessment of Sub-Clinical and Clinical Compression Socks on Individuals with Ankle Instability. *Textiles*, 2(2), 307-317. <https://doi.org/10.3390/textiles2020017>
4. Gaddis, E. S., Burch, R.F.V., Strawderman, L., **Chander, H.**, Smith, B. K., Freeman, C., & Taylor, C. (2022). The impact of using wearable devices on the operator during manual material handling tasks. *International Journal of Industrial Ergonomics*, 89, 103294. <https://doi.org/10.1016/j.ergon.2022.103294>
5. Arlotti, J.S., Carroll, W.O., Afifi, Y., Talegaonkar, P., Albuquerque, L., Ball, J.E., **Chander, H.** and Petway, A., (2022). Benefits of IMU-based Wearables in Sports Medicine: Narrative Review. *International Journal of Kinesiology and Sports Science*, 10(1), 36-43. <https://doi.org/10.7575/aiac.ijkss.v.10n.1p.36>
6. Booker, R., **Chander H.**, Norris, K.C., Thorpe Jr, R.J., Vickers, B., Holmes, M.E. (2022). Comparison of Leisure Time Physical Activities by Metabolic Syndrome Status among Adolescents. *International Journal of Environmental Research and Public Health*, 19(3), 1415. <https://doi.org/10.3390/ijerph19031415>
7. McDevitt, S., Hernandez, H., Hicks, J., Lowell, R., Bentahaikt, H., Burch, R., Ball, J., **Chander, H.**, Freeman, C., Taylor, C. & Anderson, B. (2022). Wearables for Biomechanical Performance Optimization and Risk Assessment in Industrial and Sports Applications. *Bioengineering*, 9(1), 33. <https://doi.org/10.3390/bioengineering9010033>
8. Carroll, W., Fuller, S., Lawrence, J. M., Osborn, S., Stallcu, R., Burch, R., Freeman, C., **Chander, H.**, ... & Piroli, A. (2021). Stroboscopic Visual Training for Coaching Practitioners: A Comprehensive Literature Review. *International Journal of Kinesiology and Sports Science*, 9(4), 49-59. <http://dx.doi.org/10.7575/aiac.ijkss.v.9n.4p.49>
9. **Chander H.**, Kodithuwakku Arachchige SNK, Turner AJ, Burch RFV, Reneker JC, Knight AC, Wade C & Garner JC. Sensory Organization Test Conditions Influence Postural Strategy Rather than Footwear or Workload. *International Journal of Environmental Research and Public Health*, 2021, 18(19), 10511; <https://doi.org/10.3390/ijerph181910511>.
10. † Kodithuwakku Arachchige SNK, **Chander H.**, Knight AC, Burch RFV, and Chen C. Dual Tasking During Trip Recovery and Obstacle Clearance among Young, Healthy Adults in Human Factors Research. *International Journal of Environmental Research and Public Health*, 2021, 18(19), 10144; <https://doi.org/10.3390/ijerph181910144>.
11. **Chander H.**, Kodithuwakku Arachchige SNK, Turner AJ, Burch RFB, Knight AC, Wade C & Garner JC. (2021). Role of occupational footwear and workload on lower extremity muscle activation during maximal exertions and postural stability tasks. (2020). *Biomechanics*, 1(2), 202-213; <https://doi.org/10.3390/biomechanics1020017>
12. † Kodithuwakku Arachchige SNK, Burch RFV, **Chander H.**, Turner AJ, and Knight AC. (2021). The Use of Wearable Devices in Cognitive Fatigue: Current Trends and Future Intentions. *Theoretical Issues in Ergonomics Science*. <https://doi.org/10.1080/1463922X.2021.1965670>
13. Saucier, D.N.; Davarzani, S.; Burch V, R.F.; **Chander, H.**; Strawderman, L.; Freeman, C.; Ogden, L.; Petway, A.; Duvall, A.; Crane, C.; Piroli, A. (2021). External Load and Muscle Activation Monitoring of NCAA Division I Basketball Team Using Smart Compression Shorts. *Sensors*, 21, 5348. <https://doi.org/10.3390/s21165348>
14. Carroll, W., Turner, A.J., Talegaonkar, P., Parker, E., Middleton, C., Peranich, P., Saucier, D.N., Burch, R.F.B.V., Ball, J.E., Smith, B.K., **Chander, H.**, Knight, A.C., & Freeman, C.E. (2021) "Closing the Wearable Gap: Part IX — Validation of an Improved Ankle Motion Capture Wearable," in IEEE Access, <https://ieeexplore.ieee.org/abstract/document/9508398>
15. † Turner, A.J., Carroll, W., Kodithuwakku Arachchige, S.N.K., Saucier, D., Burch, R.F., Ball, J.E., Smith, B.K., Freeman, C., Knight, A.C. & **Chander, H.** (2021). Closing the Wearable Gap: A Validation Study for a Smart Knee Brace to Capture Knee Joint Kinematics. *Biomechanics*, 1(1), 152-162; <https://doi.org/10.3390/biomechanics1010012>
16. Stewart, E., Stewart, M., Arachchige, S. N. K., Turner, A., Knight, A., Johnson, J., ... & **Chander, H.** (2021). Validation of a Bat Handle Sensor for Measuring Bat Velocity, Attack Angle, and Vertical Angle. *International Journal of Kinesiology and Sports Science*, 9(2), 28-32. <http://dx.doi.org/10.7575/aiac.ijkss.v.9n.2p.28>.
17. Simpson J., Koldenhoven R., Wilson S., Stewart E., Turner A., **Chander H.**, & Knight A. (2021). Lower extremity joint kinematics of a simulated lateral ankle sprain after drop landings in subjects with chronic ankle instability. *Sports Biomechanics Special Issue on Ankle Sprains and Instability*. <https://doi.org/10.1080/14763141.2021.1908414>.
18. Smith E, Burch RFB, Smith B, Strawderman L & **Chander H.** (2021). A Comfort Analysis of Using Smart Glasses During the "Picking" and "Putting" Task. *International Journal of Industrial Ergonomics*. 83, <https://doi.org/10.1016/j.ergon.2021.103133>.
19. **Chander H.**, Garner JC, Wade C, Wilson SJ, Turner AJ, Kodithuwakku Arachchige SNK, Hill CM, DeBusk H, Simpson JD, Miller BL, Morris CE & Knight AC. (2021). An Analysis of Postural Control Strategies in Various Types of Footwear with Varying Workloads. *Footwear Science*. <https://doi.org/10.1080/19424280.2021.1899297>.

20. † Kodithuwakku Arachchige SNK, **Chander H**, Turner AJ, Knight AC. (2021). Impact of Prolonged Exposure to a Slippery Surface on Postural Stability. *International Journal of Environmental Research and Public Health*, 18(5), 2214; <https://doi.org/10.3390/ijerph18052214>
21. Bailey C., Cagle G., Grozier C., Lehtola K., Weaver J., Wilson S., **Chander H.**, Rendos N., & Simpson J. (2021). Gathering your 'sea legs': Extended durations in an offshore environment increases postural sway. *Gait & Posture*, 86, 45-50. <https://doi.org/10.1016/j.gaitpost.2021.02.014>
22. **Chander H**, Garner JC, Wade C & Knight AC. (2021). Lower Extremity Muscle Activation in Alternative Footwear during Slip Events. *International Journal of Environmental Research and Public Health*, 18(4), 1533, <https://doi.org/10.3390/ijerph18041533>
23. **Chander H**, Kodithuwakku Arachchige SNK, Turner AJ & Knight AC. (2020). Is it me or the room moving? Recreating the classical "moving room" experiment with virtual reality for postural control adaptation. *Adaptive Behavior*. <https://doi.org/10.1177%2F1059712320971372>
24. Davarzani, S., Helzer, D., Rivera, J., Saucier, D., Jo, E., **Chander, H.**, ... & Petway, A. (2020). Validity and Reliability of StriveTM Sense3 for Muscle Activity Monitoring During the Squat Exercise. *International Journal of Kinesiology and Sports Science*, 8(4), 1-18. <http://dx.doi.org/10.7575/aiac.ijkss.v.8n.4p.1>.
25. Phan P, Vo A, Bakhtiarydavijani A, Burch RFB, Smith B, Ball J, **Chander H**, Knight AC, Prabhu RK. (2020). In Silico Finite Element Analysis of the Foot Ankle Complex Biomechanics: A Literature Review. *Journal of Biomechanical Engineering*. <https://doi.org/10.1115/1.4050667>.
26. † Kodithuwakku Arachchige, S.N.K., **Chander, H.**, Burch, R.F.V., Knight, A.C. & Carruth, D.W. (2020). Occupational falls: Interventions for fall detection, prevention and safety promotion. *Theoretical Issues in Ergonomics Science*. <https://doi.org/10.1080/1463922X.2020.1836528>
27. Price, F. G., Smith, J. W., Turner, A. J., Krings, B. M., Waldman, H. S., **Chander, H.**, Knight A.C & McAllister, M. J. (2020). High-Intensity Interval Training in Middle-Distance NCAA Division I 800/1500m Collegiate Athletes. *International Journal of Kinesiology and Sports Science*, 8(3), 28-35. <http://dx.doi.org/10.7575/aiac.ijkss.v.8n.3p.28>
28. Luczak, T., Burch, R.F.V, Smith, B., **Chander, H.**, Lamberth, J., & Carruth, D. (2020). Using Human Factors Engineering and Garvin's Product Quality to Develop a Basketball Shoe Taxonomy. *Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology*. <https://doi.org/10.1177%2F1754337120965421>
29. Talegaonkar, P., Saucier, D., Carroll, W., Peranich, P., Parker, E., Middleton, C., Davarzani, S., Turner, A., Persons, K., Casey, L., Burch, R.F., Ball, J.E., **Chander, H.**, Knight, A.C, Luczak, T., Smith, B. & Prabhu, R.K. (2020). Closing the Wearable Gap—Part VII: A Retrospective of Stretch Sensor Tool Kit Development for Benchmark Testing. *Electronics*, 9 (9), 1457. <https://doi.org/10.3390/electronics9091457>
30. Simpson J., Koldenhoven R., Wilson S., Stewart E., Turner A., **Chander H.**, & Knight A. (2020). Ankle kinematics, center of pressure progression, and lower extremity muscle activity during a side-cutting task in participants with and without chronic ankle instability. *Journal of Electromyography and Kinesiology*, 54, 102454. <https://doi.org/10.1016/j.jelekin.2020.102454>.
31. † Kodithuwakku Arachchige, S.N.K., **Chander, H.**, Knight, A.C. Chen, C.C., Pan, Z. & Turner, A.J. (2020). Impact of foot type, quadriceps angle, and minimalist footwear on static postural stability. *Footwear Science*, 12(3), 173-183. <https://doi.org/10.1080/19424280.2020.1791976>.
32. † Kodithuwakku Arachchige, S.N.K., **Chander, H.**, Turner, A.J., Wilson, S.J., Simpson, J.D., Knight, A.C., Burch, R.F.V., Wade, C., Garner, J.C. & Carruth, D.W. (2020). Muscle activity during postural stability tasks: Role of military footwear and load carriage. *Safety*, 6(3), 35. <https://doi.org/10.3390/safety6030035>
33. Pace, M., O' Neal, E., Killen, L., Green, J.C., Simpson, J.D., **Chander, H.** & J., Swain. (2020). Minimalist Style Boot Improves Running but not Walking Economy in Trained Men. *Ergonomics*, 63(10), 1329-1335. <https://doi.org/10.1080/00140139.2020.1778096>
34. **Chander, H.**, Deb, S., Shojaei, A., Kodithuwakku Arachchige, S.N.K., Hudson, C., Knight, A.C. & Carruth, D.W. (2020). Impact of Virtual Reality (VR) Generated Construction Environments at Different Heights on Postural Stability and Fall Risk. *Workplace Health and Safety*, 69, (1), 32-40. <https://doi.org/10.1177%2F2165079920934000>.
35. **Chander, H.**, Kodithuwakku Arachchige, S.N.K., Wilson, S.J., Knight, A.C., Burch, R.F.V., Carruth, D.W., Wade, C. & Garner, J.C. (2020). Impact of Military Footwear Type and Load Carriage on Slip Initiation Biomechanics. *International Journal of Human Factors and Ergonomics*, 7 (2), 125-143. <https://doi.org/10.1504/IJHFE.2020.109560>
36. **Chander, H.**, Burch, R. F., Talegaonkar, P., Saucier, D., Luczak, T., Ball, J. E., ... & Knight, A. (2020). Wearable Stretch Sensors for Human Movement Monitoring and Fall Detection in Ergonomics. *International Journal of Environmental Research and Public Health*, 17(10). <https://doi.org/10.3390/ijerph17103554>
37. † Hill, C., DeBusk, H., Knight, A., & **Chander, H.** (2020). Military-Type Workload and Footwear Alter Lower Extremity Muscle Activity During Unilateral Static Balance: Implications for Tactical Athletic Footwear Design. *Sports*, 8(5), 58. <https://doi.org/10.3390/sports8050058>.
38. Davarzani, S., Saucier, D., Peranich, P., Carroll, W., Turner, A., Parker, E., Burch, R.F., **Chander, H.**, Knight, A.C, Prabhu, R.K., & Ball, J. (2020). Closing the Wearable Gap—Part VI: Human Gait Recognition Using Deep Learning Methodologies. *Electronics*, 9(5), 796. <https://doi.org/10.3390/electronics9050796>.

39. Liu, Y., Stranburg, T., **Chander, H.**, Knight, A.C. & Bell, J. (2020). Additively Manufactured Metal Foot Orthotics: Lessons Learned From NSF I-Corps. *The International Journal of Technology Transfer and Commercialization*, 14 (4), <https://doi.org/10.1504/IJTTC.2020.113209>
40. Wilson SJ, Gdovin JR, Williams CC, Donahue PT, Mouser JG, Mutchler JA, Simpson JD, **Chander H.** & Garner JC. (2020). More than a Footwedge – Golf Specific Footwear Alters Muscle Activation Patterns During Standing Balance. *Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology*, <https://doi.org/10.1177%2F1754337120938269>.
41. Stewart, E.M., Smidebush, M., Simpson, J.D., Knight, A.C., **Chander, H.** & Shapiro, R. (2020). Differences in the Start Times of Swing Phases for Baseball Hitters of Varying Skill. *Journal of Sport Analytics*, 6 (3), 199-204.
42. Luczak, T., Burch, R.F.V., Smith, B.K., Carruth, D.W., Lamberth, J., **Chander, H.** Knight, A.C., Ball, J.E., Prabhu, R.K. (2020). Closing the Wearable Gap – Part V: Development of Pressure-Sensitive Sock Utilizing Soft Sensors. *Sensors*, 20, 208. <https://doi.org/10.3390/s20010208>.
43. Luczak, T., Burch, R., Lewis, E., **Chander, H.**, & Ball, J. (2020). State-of-the-art review of athletic wearable technology: What 113 strength and conditioning coaches and athletic trainers from the USA said about technology in sports. *International Journal of Sports Science & Coaching*, 15(1), 26-40. <https://doi.org/10.1177%2F1747954119885244>.
44. Simpson, J.D., Stewart, E.M., Turner, A.J., Macias, D., **Chander, H.** & Knight, A.C. (2020). Lower limb joint kinetics during a side-cutting movement in participants with and without chronic ankle instability. *Journal of Athletic Training*, 55 (2): 169-175. <https://doi.org/10.4085/1062-6050-334-18>.
45. Simpson, J.D., Cosio-Lima, L., Scudamore, E., O'Neal, E., Stewart, E.M., Miller, B.L., **Chander, H.** & Knight, A.C. (2020). Effects of Weighted Vest Loading during Daily Living Activities on Countermovement Jump and Sprint Performance. *International Journal of Sports Physiology and Performance*. 15(3), 309-318. <https://doi.org/10.1123/ijspp.2019-0318>
46. **Chander, H.**, Arachchige, K., Sachini, N. K., Hill, C. M., Turner, A. J., Deb, S., ... & Carruth, D. W. (2019). Virtual-Reality-Induced Visual Perturbations Impact Postural Control System Behavior. *Behavioral Sciences*, 9(11), 113. <https://doi.org/10.3390/bs9110113>.
47. Saucier, D., Davarzani, S., Turner, A., Luczak, T., Nguyen, P., Carroll, W., F Burch V, R., Ball, J.E., Smith, B.K., **Chander, H.** and Knight, A. (2019). Closing the Wearable Gap—Part IV: 3D Motion Capture Cameras Versus Soft Robotic Sensors Comparison of Gait Movement Assessment. *Electronics*, 8 (12), 1382. <https://doi.org/10.3390/electronics8121382>.
48. **Chander, H.**, Stewart, E.M., Saucier, D., Nguyen, P., Luczak, T., Ball, J.E., Knight, A.C., Smith, B.K., Burch, R.F.V. & Prabhu, R.K. (2019). Closing the Wearable Gap – Part III: Use of Stretch Sensors in Detecting Ankle Joint Kinematics during Unexpected & Expected, Slip & Trip Perturbations. *Electronics*, 8 (10), 1083. <https://doi.org/10.3390/electronics8101083>.
49. Shelly, Z., Stewart, E., Fonville, T., **Chander, H.**, Strawderman, L., May, D., ... & Bichey, C. (2019). Helmet Prototype Response Time Assessment using NCAA Division 1 Collegiate Football Athletes. *International Journal of Kinesiology and Sports Science*, 7(4), 53-65. <http://dx.doi.org/10.7575/aiac.ijkss.v.7n.4p.53>.
50. † Hill, C.M., DeBusk, H., Simpson, J.D., Miller, B.L., Knight, A.C., Wade, C., Garner, J.C. & **Chander, H.** (2019). The interaction of cognitive interferences, standing surface, and fatigue on lower extremity muscle activity. *Safety and Health at Work*, 10 (3), 321-326. <https://doi.org/10.1016/j.shaw.2019.06.002>
51. Wilson, S.J., Donahue, P.T., Williams, C.C., Hill, C.M., Simpson, J.D., Waddell, D.E., Loenneke, J.P., **Chander, H.**, Wade, C. & Garner, J.C. (2019). Differences in Falls and Recovery from a Slip Based on an Individual's Lower Extremity Corrective Response. *International Journal of Kinesiology and Sport Science*, 7(3), 34-40. <http://dx.doi.org/10.7575/aiac.ijkss.v.7n.3p.34>
52. Saucier, D., Luczak, T., Nguyen, P., Davarzani, S., Peranich, P., Ball, J.E., Burch, R.F. V., Smith, B.K., **Chander, H.**, Knight, A.C. & Prabhu, R.K. (2019). Closing the Wearable Gap—Part II: Sensor Orientation and Placement for Foot and Ankle Joint Kinematic Measurements. *Sensors*, 19(6), 3509. <https://doi.org/10.3390/s19163509>
53. **Chander, H.**, Knight, A.C. & Carruth, D.W. (2019). Does Minimalist Footwear Design Aid Postural Stability and Fall Prevention in Ergonomics? *Ergonomics in Design*. 27(4), 22-25. <https://doi.org/10.1177%2F1064804619843384>
54. Simpson, J.D., Stewart, E.M., Turner, A.J., Macias, D., **Chander, H.** & Knight, A.C. (2019). Bilateral Spatiotemporal Postural Control Impairments are Present in Participants with Chronic Ankle Instability. *Physical Therapy in Sport*, 39, 1-7. <https://doi.org/10.1016/j.ptsp.2019.06.002>
55. Smidebush, M., Stewart, E.M., Shapiro, R., **Chander, H.** & Knight, A.C. (2019). Mean muscle activation comparison between fastballs and curveballs with respect to the upper and lower extremity. *Journal of Biomechanics*. <https://doi.org/10.1016/j.jbiomech.2019.07.036>
56. **Chander, H.**, Turner, A.J., Swain, J.C., Sutton, P.E., McWhirter, K.L., Morris, C.E., Knight, A.C. & Carruth, D.W. (2019). Impact of Occupational Footwear and Workload on Postural Stability in Work Safety. *Work*, 64(4), 817-824. doi: 10.3233/WOR-193043.
57. Simpson, J.D., Knight, A.C., Macias, D., Stewart, E.M. & **Chander, H.** (2019). Individuals with chronic ankle instability exhibit dynamic postural stability deficits and altered unilateral landing biomechanics: A systematic review. *Physical Therapy in Sport*, 37, 210-219 <https://doi.org/10.1016/j.ptsp.2018.06.003>

58. Simpson, J.D., Stewart, E.M., Rendos, N., Cosio-Lima, L., Wilson, S.J., Macias, D., **Chander, H.** & Knight, A.C. (2019). Anticipating ankle inversion perturbations during a single-leg drop landing alters ankle joint and impact kinetics. *Human Movement Science*, 66, 22-30. <https://doi.org/10.1016/j.humov.2019.03.015>
59. McAllister, M.J., Holland, A.M., **Chander, H.**, Waldman, H.S., Smith, J.W. & Basham, S.A. (2019). Impact of ketone salt containing supplement on cardiorespiratory and oxidative stress response in firefighters exercising in personal protective equipment. *Asian Journal of Sports Medicine*. Vol. 10, No. 1, pp. 1–8 <https://doi.org/10.5812/asjasm.82404>
60. **Chander, H.**, McAllister, M.J., Holland, A.M., Waldman, H.S., Krings, B.M., Swain, J.C., Turner, A.J., Basham, S.A., Smith, J.W. & Knight, A.C. (2019). Effects of Ketone Ingestion on Single and Dual-Task Postural Stability and Muscular Exertion in Firefighters. *Safety*, 5(1), 15; <https://doi.org/10.3390/safety5010015>
61. † Kodithuwakku Arachchige, S.N.K., **Chander, H.** & Knight, A.C. (2019). Flat feet: Biomechanical implications, assessment and management. *The Foot*, 38, 81-85. <https://doi.org/10.1016/j.foot.2019.02.004>
62. Simpson, J.D., Stewart, E.M., Turner, A.J., Macias, D., Wilson, S.J., **Chander, H.** & Knight, A.C. (2019). Neuromuscular control in individuals with chronic ankle instability: A comparison of unexpected and expected ankle inversion perturbations during a single leg drop-landing. *Human Movement Science*, 64, 133-141. <https://doi.org/10.1016/j.humov.2019.01.013>
63. Krings, B., Waldman, H.S., Shepperd, B., Swain, J.C., Turner, A.J., **Chander, H.** McAllister, M.J., Knight, A.C. & Smith, J.W. (2019). Impact of fat grip attachments on muscular strength and neuromuscular activation during resistance exercise. *Journal of Strength and Conditioning Research*. <https://doi.org/10.1519/JSC.0000000000002954>.
64. Simpson, J.D., Knight, A.C., Macias, D., Stewart, E. & **Chander, H.** (2019). Lower extremity kinematics during ankle inversion perturbations: a novel methodology that simulates an unexpected lateral ankle sprain mechanism. *Journal of Sport Rehabilitation*, 28 (6), 593-600. <https://doi.org/10.1123/jsr.2018-0061>
65. Morris, C.E. & **Chander, H.** (2018). The Impact of Firefighter Physical Fitness on Job Performance: A Review of the Factors That Influence Fire Suppression Safety and Success. *Safety*, 4, 60. <https://doi.org/10.3390/safety4040060>
66. † Turner, A.J., **Chander, H.** & Knight, A.C. (2018). Falls in geriatric population and hydrotherapy as an intervention: A brief review. *Geriatrics*, 3(4), 71. <https://doi.org/10.3390/geriatrics3040071>
67. **Chander, H.**, Knight, A.C., Garner, J.C., Wade, C., Carruth, D.W., Wilson, S.J., Gdovin, J.R. & Williams, C.C. (2018). Impact of military type footwear and load carrying workload on postural stability. *Ergonomics*. 62(1), 103-114. <https://doi.org/10.1080/00140139.2018.1521528>
68. Stranburg, T., Liu, Y., **Chander, H.** & Knight, A.C. (2018). Assessment of Performance of Nitinol-Based Arch Wedge Supports in Bearing Forces and Stresses due to Human Movement Using FEA. *International Journal for Computational Methods in Engineering Science & Mechanics*. <https://doi.org/10.1080/15502287.2018.1533601>
69. Dabbs, N.C. & **Chander, H.** (2018). The Impact of Effects of Exercise Induced Muscle Damage on Lower Extremity Torque and Balance Performance in Recreationally Trained Individuals. *Sports*. 6 (3), 101. <https://doi.org/10.3390/sports6030101>
70. Morris, C.E., Winchester, L.J., Hussey, A.J., Tomes, A.S., Neal, W.A., Wilcoxon, D.M., **Chander, H.**, Arnett, S.W. (2018). Effect of a simulated tactical occupation task on physiological strain index, stress and inflammation. *International Journal of Occupational Safety and Ergonomics*. <https://doi.org/10.1080/10803548.2018.1482053>
71. Luczak, T., Saucier, D., Burch, R.F., Ball, J.E., **Chander, H.**, Knight, A.C., Wei, P., Iftekhar, T. (2018). Closing the Wearable Gap: Mobile Systems for Kinematic Signal Monitoring of the Foot and Ankle. *Electronics*, 7(7), 117; <https://doi.org/10.3390/electronics7070117>
72. † Hill, C.M., Wilson, S.J., Mouser, J.G., Donahue, P.T. & **Chander, H.** (2018). Motor Adaptation during Repeated Motor Control Testing: Attenuated Muscle Activation without Changes in Response Latencies. *Journal of Electromyography and Kinesiology*. <https://doi.org/10.1016/j.jelekin.2018.05.007>
73. Gdovin, J.R., Williams, C.C., Wilson, S.J., Cazas-Moreno, V.C., Eason, J.D., Hoke, E.L., Allen, C.R., **Chander, H.**, Wade, C., Garner, J.C. (2018). The effects of athletic footwear on ground reaction forces during a side step cutting maneuver on artificial turf. *International Journal of Kinesiology and Sports Sciences*, 6(2), 30-36. <http://dx.doi.org/10.7575/aiac.ijkss.v.6n.2p.30>
74. † Krings, B.M., Miller, B.L., **Chander, H.**, Waldman, H.S., Knight, A.C., McAllister, M.J., Fountain, B.J., Smith, J.W. (2018). Impact of occupational footwear during simulated workloads on energy expenditure. *Footwear Science*, 1-9. <https://doi.org/10.1080/19424280.2018.1460623>
75. Simpson, J.D., Miller, B.M., Knight, A.C. & **Chander, H.** (2018). Impact of external load training on drop landing kinetics. *Human Movement Science*, 59, 12-17. <https://doi.org/10.1016/j.humov.2018.03.011>
76. Morris, C.E., Winchester, L.J., Hussey, A.J., Tomes, A.S., Neal, W.A., Wilcoxon, D.M., **Chander, H.**, Arnett, S.W. (2018). Effect of a simulated tactical occupation stressor and task complexity on mental focus and related physiological parameters. *International Journal of Industrial Ergonomics*. 66, 200-205. <https://doi.org/10.1016/j.ergon.2018.03.006>
77. **Chander, H.**, Knight, A.C., Garner, J.C., Wade, C., Carruth, D.W., DeBusk, H. & Hill, C.M. (2018). Impact of military type footwear and workload on heel contact dynamics during slip events. *International Journal of Industrial Ergonomics*, 66(C), 18-25. <https://doi.org/10.1016/j.ergon.2018.02.008>
78. Waldman, H.S., Basham, S.A., Krings, B.M., Smith, J.W., **Chander, H.**, Knight, A.C., McAllister, M.J. (2018). Exogenous Ketone Salts Improve Cognitive Responses Without Decrements to High Intensity Exercise Performance in Healthy College-Aged Males. *Applied Physiology, Nutrition, Metabolism*. <http://dx.doi.org/10.1139/apnm-2017-0724>

79. † Turner, A.J., Swain, J.C., McWhirter, K.L., Knight, A.C., Carruth, D.W. & **Chander, H.** (2018). Influence of occupational footwear and workload on muscular exertion. *International Journal of Exercise Science*; 11 (1), 331-341. <https://digitalcommons.wku.edu/ijes/vol11/iss1/4>
80. † DeBusk, H., Hill, C.M., **Chander, H.**, Knight, A.C. & Babski-Reeves, K. (2018). Influence of Military Workload and Footwear on Static and Dynamic Balance Performance. *International Journal of Industrial Ergonomics*. <https://doi.org/10.1016/j.ergon.2017.11.003>.
81. † Hill, C.M., DeBusk, H., Knight, A.C. & **Chander, H.** (2017). Influence of military type workload and footwear on muscle exertion during balance performance. *Footwear Science* 9(3), 169-180. <https://doi.org/10.1080/19424280.2017.1403968>
82. Morris, C.E., **Chander, H.**, Wilson, S.J., Wade, C., Loftin, M. & Garner, J.C. (2017). Impact of alternative footwear on human energy expenditure. *Journal of Human Sport and Exercise*. v. 12, n. 4, p. 1220-1229. doi: <https://doi.org/10.14198/jhse.2017.124.08>.
83. Simpson, J.D., DeBusk, H., Hill, C.M., Knight, A.C. & **Chander, H.** (2017). Effects of Military Footwear Type and Workload on Ground Reaction Forces during a Dynamic Inversion perturbation. *The Foot*. <https://doi.org/10.1016/j.foot.2017.11.010>
84. Wilson, S.J., Williams, C.C., Gdovin, J.R., Eason, J.D., **Chander, H.**, Wade, C. & Garner, J.C. (2017). The Influence of an Acute Bout Whole Body Vibration on Human Postural Control Responses. *Journal of Motor Behavior*. <https://doi.org/10.1080/00222895.2017.1383225>
85. **Chander, H.**, Wade, C., Garner, J.C. & Knight, A.C. (2017). Slip Initiation in Alternative and Slip Resistant Footwear. *International Journal of Occupational Safety and Ergonomics*, 23(4), 558-569. <https://doi.org/10.1080/10803548.2016.1262498>
86. **Chander, H.**, Garner, J.C., Wade, C. and Knight, A.C. (2017). Postural Control in Workplace Safety: Role of Occupational Footwear and Workload. *Safety*. 3(3), 18; <https://doi:10.3390/safety3030018>
87. Dabbs, N.C., Sauls, N.M., Zayer, A. & **Chander, H.** (2017). Balance Performance in Collegiate Athletes: A Comparison of Balance Error Scoring System Measures. *J. Funct. Morphol. Kinesiol.* 2(3), 26; <https://doi:10.3390/jfkm2030026>
88. Simpson, J., Miller B.L., O'Neal E., **Chander, H.** & Knight A.C. (2017). External Load Training Does Not Alter Balance Performance in Well-Trained Women. *Sports Biomechanics*, 1-14. <https://doi.org/10.1080/14763141.2017.1341546>
89. Morris, C.E., **Chander, H.**, Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W., Loftin, M. (2017). Evaluating Human Balance Following an Exercise Intervention in Previously Sedentary, Overweight Adults. *J. Funct. Morphol. Kinesiol.* 2(2), 19; <https://doi:10.3390/jfkm2020019>
90. **Chander, H.**, Wade, C. & Garner, J.C. (2016). Slip Outcomes in Firefighters: A Comparison of Rubber and Leather Boots. *Occupational Ergonomics*, 13 (2), 67-77. <https://DOI:10.3233/OER-160241>
91. **Chander, H.**, Morris CE, Wilson SJ, Wade, C & Garner JC. (2016). Impact of Alternative Footwear on Balance. *Footwear Science*, 8(3), 165-174. <https://doi.org/10.1080/19424280.2016.1195881>
92. **Chander, H.**, & Dabbs, N. C. (2016). Balance Performance and Training Among Female Athletes. *Strength & Conditioning Journal*, 38(2), 8-13. <https://doi:10.1519/SSC.0000000000000204>
93. Knight, A. C., Holmes, M. E., **Chander, H.**, Kimble, A., & Stewart, J. T. (2016). Assessment of balance among adolescent track and field athletes. *Sports biomechanics*, 15(2), 169-179. <https://doi.org/10.1080/14763141.2016.1159324>
94. **Chander, H.**, Garner, J. C., & Wade, C. (2015). Heel Contact Dynamics in Alternative Footwear during Slip Events. *International Journal of Industrial Ergonomics*, 48, 158-166. <https://doi.org/10.1016/j.ergon.2015.05.009>
95. **Chander, H.**, Wade, C., & Garner, J. C. (2015). Impact of Occupational Footwear on Dynamic Balance Perturbations. *Footwear Science*, 7(2), 115-126. <https://doi.org/10.1080/19424280.2015.1031193>
96. **Chander, H.**, Garner, J. C., & Wade, C. (2015). Ground Reaction Forces in Alternative Footwear during Slip Events. *International Journal of Kinesiology and Sports Science*, 3(2), 1-8. <http://dx.doi.org/10.7575/aiac.ijkss.v.3n.2p.1>
97. **Chander, H.**, MacDonald, C. J., Dabbs, N. C., Allen, C. R., Lamont, H. S., & Garner, J. C. (2014). Balance Performance in Female Collegiate Athletes. *Journal of Sports Science*, 2, 13-20.
98. **Chander, H.**, Garner, J. C., & Wade, C. (2014). Impact on balance while walking in occupational footwear. *Footwear Science*, 6(1), 59-66. <https://doi.org/10.1080/19424280.2013.834979>
99. Dabbs, N. C., MacDonald, C. J., **Chander, H.**, Lamont, H. S., Garner, J. C. (2014). The Effects of Whole-body Vibration on Balance in Elderly Women. *Medicina Sportiva*. 18(1): 10-15. <https://DOI:10.5604/17342260.1094780>
100. Garner, J. C., Wade, C., Garten, R., **Chander, H.**, & Acevedo, E. (2013). The influence of firefighter boot type on balance. *International Journal of Industrial Ergonomics*, 43(1), 77-81. <https://doi.org/10.1016/j.ergon.2012.11.002>
101. MacDonald, C. J., Israetel, M., Dabbs, N. C., **Chander, H.**, Allen, C. R., Lamont, H., & Garner, J. C. (2013) Influence of Body Composition on Selected Jump Performance Measures in Collegiate Female Athletes. *Journal of Trainology*, 2: 33-37. [https://doi.org/10.17338/trainology.2.2\\_33](https://doi.org/10.17338/trainology.2.2_33)

#### **Textbook/ Textbook Chapters:**

- Garner, J.C., Allen, C.R., **Chander, H.** & Knight, A.C. (2022). Applied Biomechanics Laboratory Manual. *Human Kinetics (with HKPropel)*. ISBN: 9781718207417.
- Garrison, T & **Chander, H.** (2018). Chapter 08 - *The Safety Crew and Event Staff* in *The science of motorsport*. Ferguson, D. P. (Ed.). Routledge.

**Research Funding:**

	<i>Applied</i>	<i>Acquired</i>	<i>In-Review</i>
<i>External Funding</i>	\$9,561,655.00	\$1,947,346.00	\$3,463,583.00
<i>Internal Funding</i>	\$135,250.00	\$133,250.00	\$2,000.00
<i>Total</i>	\$9,696,905.00	\$2,080,596.00	\$3,465,583.00

<b>Funded</b>				<b>In-Review</b>			
<b>Grant</b>	<b>Year</b>	<b>Role</b>	<b>Amount</b>	<b>Grant</b>	<b>Year</b>	<b>Role</b>	<b>Amount</b>
NSF - MRI	2022	Co-PI	\$770,000.00	NSF - NRT	2022	Co-PI	\$2,999,986.00
NIOSH	2022	PI	\$10,000.00	NSF - REU	2022	Co-PI	\$404,997.00
MCCTR/NIH	2021	Co-PI	\$39,988.00	MCCTR/NIH	2022	PI	\$58,600.00
NSF - iCorps (Site)	2020	PI	\$3,000.00	MSU ORED UG	2022	PI	\$2,000.00
NSF - PFI (Suppl)	2020	Co-PI	\$34,930.00				
NSF - PFI (Suppl)	2020	Co-PI	\$16,000.00				
NSF - PFI (Suppl)	2020	Co-PI	\$134,628.00	<b>Not Funded</b>			
DOL - OSHA	2020	Co-PI	\$74,993.00	<b>Grant</b>	<b>Year</b>	<b>Role</b>	<b>Amount</b>
NIOSH - PPRT	2019	PI	\$12,000.00	NSF-TT	2021	Co-PI	\$249,722.00
NSF - PFI	2018	Co-PI	\$749,932.00	FEMA	2021	PI	\$51,238.00
NSF - iCorps (National)	2018	Co-PI	\$50,000.00	NSF-ERC	2021	Co-PI	\$98,464.00
NIOSH - PPRT	2018	PI	\$12,000.00	MCCTR/NIH	2021	PI	\$39,988.00
NSF - iCorps (Site)	2017	Co-PI	\$3,000.00	MCCTR/NIH	2021	PI	\$39,997.00
NIOSH - PPRT	2015	PI	\$20,000.00	NIOSH - R03	2021	PI	\$142,802.00
PACCAR	2018	Co-PI	\$16,875.00	CPWR	2021	PI	\$29,993.00
ORED-COE	2018	PI	\$4,665.00	HRSA	2021	PI	\$748,456.00
ORED-UG RG	2018	Co-PI	\$2,000.00	DOL - OSHA	2020	Co-PI	\$75,000.00
SEC Travel Grant	2018	PI	\$1,000.00	NIOSH - R03	2020	Co-PI	\$149,508.00
ORED-UG RG	2018	PI	\$1,995.00	NIOSH - R21	2020	PI	\$351,634.00
ORED-UG RG	2018	Co-PI	\$2,000.00	DOT	2019	Co-PI	\$427,659.00
ORED-CC	2017	PI	\$2,000.00	NSF - TT	2019	Co-PI	\$249,948.00
ORED-UG RG	2017	Co-PI	\$2,000.00	DOD	2016	PI	\$497,956.00
ORED-F RG	2016	PI	\$1,700.00	NSF -PFI: BIC	2014	Co-PI	\$998,361.00
ORED-CC	2016	PI	\$2,000.00				
ORED-F RG	2015	PI	\$3,000.00				
BCOE-WG	2016	PI	\$2,000.00				
CAVS-KINE COLAB	2015	PI	\$100,000.00				
BCOE-WG	2015	Co-PI	\$1,425.00				
ORED-F RG	2015	PI	\$965.00				
ORED-CC	2015	PI	\$2,000.00				
ORED-CC	2014	PI	\$2,000.00				
BCOE-WG	2014	PI	\$500.00				
BCOE-WG	2014	Co-PI	\$2,000.00				

**TEACHING**

Graduate and undergraduate level classes in six concentrations in the Department of Kinesiology

<b>Teaching Evaluations</b>	<b>Overall Average</b>
<i>Global Index (Old Format) (max score of 5)</i>	4.83 / 5 point scale
<i>Median Score (New Format) (max score of 4)</i>	3.76 / 4 point scale

**Mississippi State University:**

- MSU - KI 8543 – Postural and Locomotor Rehabilitation (Spring 2019, Fall 2020)
- MSU - EP 8503 – Occupational Physiology (Fall 2016, Spring 2017, 2018)
- MSU - EP 8443 – Neural Mechanisms in Human Movement and Exercise (Fall 2015, 2017, 2019)
- MSU - EP 4503 – Mechanical Analysis of Movement (Summer 2016, 2017, 2018, 2019)
- MSU - EP 3643 – Applied Anatomy & Pathophysiology (Spring 2015, 2016, 2017, 2018, 2019; Summer 2016, 2017, 2018, 2019; Fall 2020, 2021, 2022)
- MSU - EP 3233 – Anatomical Kinesiology (Fall 2014, 2015, 2016, 2017; 2022; Summer 2015, 2016, 2018; Spring 2017)

- MSU - KI 3633 – Rehabilitation Techniques in Sports Medicine (Fall 2014, Summer 2015)
- MSU - KI 3273 – Athletic Training (Summer 2015, Fall 2015)
- MSU - PE 4283 – Sports Biomechanics (Spring 2015, 2016, 2017; Summer 2015, 2016, 2017, 2018, 2019)
- MSU - KI 2603 – Medical Terminology (Summer 2015, 2016)

**University of Mississippi:**

- UM - ES 338 – Motor Control and Learning (Fall 2013; Spring 2014)
- UM - ES 346 – Kinesiology (Spring 2012, Spring 2014)
- UM - HP 303 – Prevention and Care of Athletic Injuries (Fall 2012; Spring 2013)
- UM - ES 447 – Biomechanics Laboratory (Fall 2009, 2010; Spring 2010, 2011; Summer 2011, 2012)
- UM - ES 349 – Exercise Physiology Laboratory (Summer 2013)
- UM - HP 191 – Personal and Community Health (Summer 2012, 2012, 2013; Winter 2014)
- UM - EL 151 – Resistance Training and Weightlifting (Fall 2009, Spring 2010)

**DIRECTORSHIP AND LEADERSHIP**

2014 – Present	Co-Director of the Neuromechanics Laboratory
2021 – Present	Chair, Academic Culture Committee, Department of Kinesiology, Mississippi State University
2022 – Present	Mentor, University of Mississippi Medical Center (UMMC), Graduate Training and Education Center (GTEC) through NIH/NHLBI
2016 – Present	Faculty Advisor, Neuromechanics Research Group (NRG), Undergraduate Student Club, Mississippi State University
2016 – 2017	Co-Director of the Human Factors Working Group, Mississippi State University
2018 – Present	Faculty Advisor, Agriculture and Biomedical Engineering Senior Design Teams, Mississippi State University
2018 – Present	Faculty Advisor, Shackouls Honors College, Mississippi State University

**SERVICE**

**Committee Service:**

2021 – Present	Committee Member, Institutional Review Board (IRB), Mississippi State University
2022 – Present	Committee Member, Promotion and Tenure Committee, College of Education, Mississippi State University
2021 – 2022	Committee Member, Graduate Studies Working Group, Strategic Enrollment Planning Exercise, Mississippi State University
2020 – Present	Committee Member, Public Relations, Department of Kinesiology, Mississippi State University
2019 – Present	Committee Member, Faculty Council, College of Education, Mississippi State University
2014 – 2016	Committee Member, Diversity Committee, College of Education, Mississippi State University
2014 – Present	Committee Member, Laboratory Committee, Department of Kinesiology, Mississippi State University
2014 – Present	Committee Member, Academic Culture Committee, Department of Kinesiology, Mississippi State University
2014 – Present	Committee Member, Exercise Science Curriculum Committee, Department of Kinesiology, Mississippi State University
2014 – Present	Committee Member, Sports Studies Curriculum Committee, Department of Kinesiology, Mississippi State University
2019 – 2020	Committee Member, ISWD Faculty Search Committee

**Other University Service:**

2016 – Present	Recurring Graduate Teaching Assistant (GTA) Evaluator, Graduate School, Mississippi State University
2020 – Present	Recurring Guest Mentor, Preparing Future Faculty (PFF), Center for Teaching and Learning (CTL)
2020 – Present	Recurring Guest Speaker, Research Involvement, Shackouls Honors College.
2015 – Present	Recurring Judge at Graduate and Undergraduate Research Symposium

**Research Service:**



### Journal Editorial and Reviewer Board:

2020 – Present	Topic Editor <i>International Journal of Environmental Research and Public Health</i>
2020 – Present	Reviewer Board Member <i>Healthcare</i>
2021 – Present	Guest Editor, Special Issue: Advances in Fall Prevention, <i>International Journal of Environmental Research and Public Health</i>
2020 – 2021	Guest Editor, Special Issue: Physical and Cognitive Ergonomics, <i>International Journal of Environmental Research and Public Health</i>

### Invited Grant Proposal Reviewer:

- Center for Disease Control (CDC) / National Institute of Occupational Safety and Health (NIOSH)
- Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST) (Canada)
- Canada Foundation for Innovation (CFI) (Canada)

### Invited Peer-Reviewer for Journals, Conferences, and Textbooks:

<i>International Journals</i>	36 Journals
<i>Invited Peer-Reviews Performed</i>	132 Peer-Reviews
<i>Invited Book Peer-Reviews Performed</i>	1 Book Peer-Review
<i>Invited Book Chapter Peer-Review Performed</i>	2 Book Chapter Peer-Review
<i>Invited PhD Dissertation/Thesis External Reviewer</i>	1 International (Australia)

### Faculty Advisor and Research Committee Service:

<i>Graduate - Doctoral (PhD)</i>	<i>Graduate Level 1 Faculty</i> <i>Chair: 8 Students; Committee Member: 8 Students</i>
<i>Graduate - Masters (MS)</i>	<i>Chair: 6 Students</i> <i>Committee Member: 2 Students</i> <i>Non-Thesis Committee Member: 12 Students</i>
<i>Undergraduate - Bachelors (BS)</i>	<i>Chair for Directed Individual Study: 18 Students</i> <i>Chair for Internship: 5 Students</i> <i>Advisor: 74 Students</i>

### MSU Research Working Groups:

2018 – Present	Working Group Member - Athlete Engineering Working Group
2017 – 2020	Working Group Member - Body Sensor Network and Wearable Technology
2014 – 2017	Working Group Member - Human Factors Working Group
2014 – 2015	Working Group Member - RADAR Working Group

### Mentored Student Research Awards:

- Sachini Kodithuwakku Arachchige - ORED/COE Graduate Student Researcher of the year award – 2021 – **Primary Advisor**
- Luke Ramsey - ORED/COE Undergraduate Student Researcher of the year award – 2020 – **Primary Advisor**
- Alana Turner - ORED/COE Graduate Student Researcher of the year award – 2020 – **Primary Advisor**
- Hannah Freeman - ORED/COE Undergraduate Student Researcher of the year award – 2020 – **Primary Advisor**
- Sachini Kodithuwakku Arachchige – Graduate School GTA of the year award – 2020 – **Primary Advisor**
- Alana Turner – Kinesiology Exercise Science Mater's Student of the year award – 2018 – **Primary Advisor**
- Sachini Kodithuwakku Arachchige – Research Poster Presentation Winner GSA – 2018 – **Primary Advisor**
- Alana Turner – ORED/COE Undergraduate Student Researcher of the year award – 2017 – **Primary Advisor**
- Jeffrey Simpson - ORED/COE Graduate Student Researcher of the year award – 2016 – **Committee Member**
- Christopher Hill – ORED/COE Graduate Student Researcher of the year award – 2015 – **Primary Advisor**

### Awards and Recognitions:

- Winner of the Herb Handley Research Award, College of Education, Mississippi State University, 2020
- Winner of the Graduate Advisor of the Year, Graduate Student Association, MSU Graduate School, 2020
- Third place winner of Rapid Research Race for Assistant Professors at SEACSM 2020
- Finalist, Graduate advisor of the year, Graduate Student Association, MSU Graduate School, 2019
- J. Robert Blackburn Graduate Award in Exercise Science, University of Mississippi Honors Convocation, 2014
- Graduate Achievement Award in Health, Exercise Science and Recreation Management, University of Mississippi Honors Convocation, 2014

- Grand Prize Winner, University of Mississippi 3 Minute Thesis Competition - Represented University of Mississippi at the South Council of Graduate Schools at San Antonio in February 2014.
- Winner of the Student of the Month, School of the Applied Sciences - October 2013
- Winner of University of Mississippi - Annual Research Day and Symposium - 2<sup>nd</sup> Place; 2012

#### **Memberships:**

- 2014 – Present **Professional Member**, American Society of Biomechanics
- 2011 – Present **Professional Member**, Southeast Regional Chapters: American College of Sports Medicine
- 2015 – 2017 **Professional Member**, International Council of Motor Sports
- 2015 – 2016 **Professional Member**, Gait and Clinical Movement Analysis Society
- 2008 – Present **Life Member**, Indian Association of Physiotherapists

#### **Certifications:**

- Licensed Physical Therapist – Indian Association of Physiotherapists
- Certified Manual Therapist – Orthopedic Manipulative Rehabilitation
- Certified Instructor for CPR/AED; Adult, Children & Infant, American Red Cross

#### **Invited Presentation / Talks / Lectures:**

- Invited Speaker, MSU / MCCTR Wearable Technology Collaboration, UMMC, July 6<sup>th</sup> 2022
- Invited Panelist, Smart Fabrics Summit, March 28-29, 2022, Raleigh, NC.
- Invited Speaker, Biomechanics Interest Group (BIG), SEACSM, February 17-19, 2022, Greenville, SC.
- Invited Panel Speaker in Athlete Engineering Panel at the Vibration Institute Conference, July 2021, Arlington, TX.
- Invited Panel Speaker in Athlete Engineering Panel at the Tactical Athlete Summit, October 2021, Auburn, AL.
- Deep South NIOSH ERC Research Symposium 2020, Birmingham, AL.
- Invited Guest Speaker – UTHSC Department of Physical Therapy – Sept 2019
- Invited Conference Moderator (Clinical Biomechanics) – Mid-South Biomechanics Conference – Feb 2018.
- Deep South NIOSH ERC Research Symposium 2017, Auburn, AL.
- Ergonomics Assessment of Engine Assembly Tasks 2017 – PACCAR, Inc.
- The University of Memphis 2017 – Why do we Fall?
- Center for American Veterans, Mississippi State University 2016 – Military Research
- Ergonomics Assessment of Workplace Setting, Ole Miss Theatre, University of Mississippi, USA, 2013
- Ergonomics Awareness and Workplace Safety, Schwing Stetter India Pvt. Ltd, Chennai, India, 2013

#### **On Campus Collaborations:**

- Athlete Engineering and Human Factors (CAVS)
- Industrial Systems and Engineering
- Electrical and Computer Engineering
- Computer Science and Engineering
- Mechanical Engineering
- Agriculture and Biomedical Engineering
- Fashion Design and Merchandising
- Building Construction Science

#### **Off-Campus Collaborations:**

- University of Mississippi
- University of Mississippi Medical Center
- University of Alabama-Birmingham
- Troy University
- Texas State University
- University of Texas-Arlington
- University of North Alabama
- University of West Florida
- Georgia Southern University
- Northern Illinois University
- California State University-San Bernardino
- Coastal Carolina University
- Weber State University

#### **References:**

##### **Stanley P. Brown, Ph.D., FACSM**

Professor and Head  
Department of Kinesiology  
Mississippi State University  
McCarthy 216, Mississippi State, MS 39762  
Email: [spb107@msstate.edu](mailto:spb107@msstate.edu) , Phone: (662) 325 2963

##### **John C. Garner III, Ph.D., CSCS\*D**

Dean and Professor College of Health & Human Services  
Department of Kinesiology & Health Promotion  
Troy University  
Suite 112 Wright Hall, Troy, AL 36082  
Email: [jcgarner@troy.edu](mailto:jcgarner@troy.edu); Phone: (334) 670 344