

Harish Chander, Ph.D.

Associate Professor of Biomechanics
Co-Director of the Neuromechanics Laboratory
Department of Kinesiology
Mississippi State University

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ACADEMIC RECORD:

Doctor of Philosophy

University of Mississippi,
Department of Health, Exercise Science & Recreation
Management, University, MS
Major Area: Biomechanics / Neuromechanics
Minor Area: Exercise Physiology
Research Concentration: Ergonomics and Fall Prevention
August 2014

Doctoral Dissertation:

Biomechanics of Slips in Alternative Footwear

Master of Science

University of Mississippi,
Department of Health, Exercise Science & Recreation
Management, University, MS
Major Area: Neuromechanics
Minor Area: Exercise Physiology
Research Concentration: Ergonomics and Fall Prevention
May 2012

Masters' Thesis:

Impact of Occupational Footwear on Balance

Bachelor of Physical Therapy

The Tamil Nadu Dr. MGR Medical University
Sree Balaji College of Physiotherapy
Chennai, Tamil Nadu, India
Major Area: Orthopedic and Pediatric PT
Work Concentration: Neuro-Developmental Therapy
May 2008

Under-Grad Dissertation:

The Effects of Cryotherapy and Massage in the Treatment of
Delayed Onset of Muscle Soreness (DOMS)

EMPLOYMENT HISTORY:

2020 – Present

Associate Professor of Biomechanics (Tenured)
Co-Director of the Neuromechanics Laboratory
Level I Graduate Faculty

2014 – 2020

Department of Kinesiology, Mississippi State University
**Assistant Professor of Biomechanics (Tenure-Track & Level I
Graduate Faculty)**
Co-Director of the Neuromechanics Laboratory
Department of Kinesiology, Mississippi State University

- Human Factors and Ergonomics
- Neuromotor Control and Learning
- Biomechanics and Occupational Biomechanics
- Anatomical Kinesiology and Applied Anatomy & Pathophysiology
- Prevention and Care / Rehabilitation Techniques in Sports Medicine
- Athletic Training
- Sports Biomechanics

2010 – 2014

Graduate Teaching Assistant

Department of Health, Exercise Science and Recreation Management, University of Mississippi

- Motor Control and Learning Instructor
- Kinesiology Instructor and Teaching Assistant
- Care and Prevention of Athletic Injuries Instructor
- Biomechanics and Exercise Physiology Laboratory Instructor

Graduate Research Assistant and Student Lab Director

Applied Biomechanics Laboratory, Department of Health, Exercise Science and Recreation Management, University of Mississippi

- Undergraduate Practicum and Independent Study Student Advisor
- Equipment Management
- Research Design, Evaluation and Implementation
- Data Collection, Programming and Analysis

2008 – 2009

Physical Therapist and Fitness Coordinator

Talwalkars Better Value Fitness Pvt. Ltd, Chennai, India

- Exercise Prescription and Testing
- Fitness Trainer
- Administrative official for promoting health & fitness

2007 – 2008

Pediatric Physical Therapist

VinayagaPhysio Point, Chennai, India

- Diagnosis, assessment and treatment of ailments (Physical Therapy)
- Pediatric Neuro-Development Therapy
- Pain Relief of Musculoskeletal Injuries
- Rehabilitation of Orthopedic and Neurological Conditions

POSITIONS HELD:

2020 – Present

Associate Professor of Biomechanics

Department of Kinesiology, Mississippi State University

2014 – 2020

Assistant Professor of Biomechanics

Department of Kinesiology, Mississippi State University

2016 – Present

Adjunct Research Assistant Professor

The University of Mississippi

2014 – Present

Affiliated Faculty Researcher

2010 –2014 Human Performance Lab, Center for Advanced Vehicular Systems (CAVS)
Graduate Research Assistant - Applied Biomechanics Laboratory, University of Mississippi

2007 – 2008 **Physical Therapist Clinical Intern**
 Sree Balaji College of Physiotherapy, Department of Physical Therapy

DIRECTORSHIP AND LEADERSHIP:

2014 – Present **Co-Director**
 Neuromechanics Laboratory

2017 – 2020 **Co-Director**
 Human Performance Lab, Center for Advanced Vehicular Systems (CAVS)

2016 – Present **Faculty Advisor**
 Neuromechanics Research Core (NRC), Undergraduate Student Club, Mississippi State University

2016 –2017 **Co-Director**
 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

2010 – 2014 **Graduate Student Advisor** - Honors Thesis Students - Sally McDonnell Barksdale Honors College, University of Mississippi

2013 – 2014 **Director** – Academic and Professional Development Committee - Graduate Student Council - University of Mississippi

2012 – 2014 **Graduate Student Director**
 Applied Biomechanics Laboratory, University of Mississippi

2012 – 2013 **Chair**
 Academic Affairs Committee - Graduate Student Council - University of Mississippi

COMMITTEE MEMBERSHIP AND SERVICE:

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**

- 2014 – Present Academic Culture Committee, Department of Kinesiology, Mississippi State University
Committee Member
- 2014 – Present Exercise Science Curriculum Committee, Department of Kinesiology, Mississippi State University
Committee Member
- 2013 – 2014 Sports Studies Curriculum Committee, Department of Kinesiology, Mississippi State University
Graduate Student Council Representative
- 2012 – 2014 Standing Committee - Office of the Chancellor; Recreational Facilities, University of Mississippi
Senator
 Graduate Student Council - University of Mississippi

MISSISSIPPI STATE UNIVERSITY RESEARCH WORKING GROUPS:

- 2014 – 2015 **Working Group Member**
 RADAR Working Group, Mississippi State University
- 2014 – 2017 **Working Group Member**
 Human Factors Working Group, Mississippi State University
- 2017 – Present **Working Group Member**
 Body Sensor Network and Wearable Technology Working Group, Mississippi State University
- 2018 – Present **Working Group Member**
 Athlete Engineering Working Group, Mississippi State University

RESEARCH SERVICE:

- 2020 – Present Topic Editor
International Journal of Environmental Research and Public Health
- 2020 – Present Reviewer Board Member
Healthcare

PEER-REVIEWED PUBLICATIONS

Peer-Reviewed Research Publications			
	Published	In-Review	In-Preparation
Journal Articles	72 (70 since 2014)	7	4
Conference Proceedings and Presentations	131 (126 since 2014)	-	-
Book Chapters	1	-	-
Book – Lab Manual			1

PEER-REVIEWED JOURNAL ARTICLES:

Published/In-Press:

† Indicates student mentored project

1. 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*. <https://doi.org/10.1016/j.jelekin.2020.102454>.
2. † 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*. <https://doi.org/10.1080/19424280.2020.1791976>.
 3. † 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>
 4. 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*. <https://doi.org/10.1080/00140139.2020.1778096>
 5. **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*. <https://doi.org/10.1177%2F2165079920934000>.
 6. **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.
 7. **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>
 8. † 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>.
 9. 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>.
 10. 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*. (In-Press).
 11. 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. *Journal of Sports Engineering and Technology*. <https://doi.org/10.1177/1754337120938269>.
 12. 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*. DOI: 10.3233/JSA-200394

13. 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>.
14. 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>.
15. 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>.
16. **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>.
17. 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>.
18. **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>.
19. 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>.
20. † 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>
21. 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>
22. 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>
23. Simpson, J.D., Cosio-Lima, L., Scudamore, E., O'Neal, E., Stewart, E.M., Miller, B.L., **Chander, H.** & Knight, A.C. (2019). Effects of Weighted Vest Loading during Daily Living Activities on Countermovement Jump and Sprint Performance. *International Journal of Sports Physiology and Performance*. <https://doi.org/10.1123/ijspp.2019-0318>

24. **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>
25. 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>
26. 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>
27. **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.
28. 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>
29. 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>
30. 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/asjism.82404>
31. **Chander, H.**, McAllister, M.J., Holland, A.M., Waldman, H.S., Krings, B.M., Swain, J.C., Smidebush, 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>
32. † 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>
33. 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>
34. 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>.
35. 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>

36. 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>
37. † 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>
38. **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>
39. 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>
40. 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>
41. 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>
42. Luczak, T., Saucier, D., Burch, R.F., Ball, J.E., **Chander, H.**, Knight, A.C., Wei, P., Iftexhar, 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>
43. † 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>
44. 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>
45. † 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>
46. 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>
47. 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>

48. **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>
49. 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 and Metabolism*. <http://dx.doi.org/10.1139/apnm-2017-0724>
50. † 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>
51. † 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>.
52. † 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>
53. 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>.
54. 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>
55. 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>
56. **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>
57. **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>
58. 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/jfmk2030026>
59. 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>
60. 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/jfmk2020019>

61. **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>
62. **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>
63. **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>
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71. 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>
72. MacDonald, C. J., Israel, 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

In-Review/In-Revision:

1. **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*. (In-Review).
2. Bailey C., Cagle G., Grozier C., Lehtola K., Weaver J., Wilson S., **Chander H.**, Rendos N., & Simpson J. (2020). Gathering your ‘sea legs’: Extended durations in an offshore environment increases postural sway. *Gait & Posture* (In Review).

3. 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*. (In-Review).
4. **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. (2020). An Analysis of Postural Control Strategies in Various Types of Footwear with Varying Workloads. *Footwear Science*. (In-Review).
5. Wilson SJ, Donahue P, Mutchler J, Williams C, Hill CM, Simpson JD, **Chander H**, Wade C, Garner JC, Waddell DE. (2020). The Slippery Slope between Falling and Recovering – Activity of the Piper Frequency Band may Reveal Cortical Activation during a Slip Perturbation. *International Journal of Exercise Science*. (In-Review).
6. 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*. (In-Review).
7. Turner AJ, **Chander H**, Knight AC, Burch RFB, Luczak T, Ball J, Smith B & Prabhu RK. Wearable Technology in Pediatric Rehabilitation: A Commentary. *Health Education Journal*. (In-Review).

In-Preparation:

1. Tuner AJ, **Chander H**, Knight AC, Chen CC, Pan Z & Kodithuwakku Arachchige SNK. Effects of hydrotherapy vs. land-based exercises on dual-task postural control in geriatric population. *The International Journal of Aging and Human Development*. (In-Preparation).
2. **Chander H**, Garner JC & Wade C. Footwear Impacts on Human Balance: A Brief Review. *Footwear Science*. (In-Preparation).
3. **Chander, H**, Garner, J.C. & Wade, C. The Effect of Extended Durations of Walking in Occupational Footwear on Muscle Activity. *International Journal of Occupational Safety & Ergonomics*. (In-Preparation).
4. Gdovin JR, Wilson SJ, Williams CC, Eason JD, **Chander H**, Williams N, Wade C, Garner JC. The Influence of Golf Specific Footwear and Workloads on Human Gait. *International Journal of Golf Science*. (In-Preparation).

PEER-REVIEWED CONFERENCE PROCEEDINGS AND PRESENTATIONS:

American Society of Biomechanics (ASB):

1. Wilson, S.J., Hill, C.M., DeBusk, H., Simpson, J.D., Miller, B.L., Knight, A.C., Garner, J.C., Wade, C. & **Chander, H**. The Interaction of Cognitive Interference, Standing Surface, and Fatigue on Lower Extremity Muscle Activity. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of the International Society of Biomechanics (ISB)*, Calgary, Canada. July 31 – August 4, 2019.
2. Smidebush, M., Stewart, E.M., Knight, A.C., **Chander, H.** & Shapiro, R. Muscle activation analysis with kinematic comparison between wind-up and stretch pitching with respect to the upper and lower extremities. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of Biomechanics*, Rochester, Minnesota, August 8-11, 2018.

3. Wilson, S.J., Donahue, P.T., Williams, C.C., Hill, C.M., Luginsland, L., Waddell, D.E., **Chander, H.** & Garner, J.C. Lead leg recovery responses between individuals who fall and recover after an unexpected slip. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of Biomechanics*, Rochester, Minnesota, August 8-11, 2018.
4. Garner, J.C., Donahue, P.T., Williams, C.C., Hill, C., Luginsland, L., Waddell, D.E., **Chander, H.** & Wilson, S.J. Postural control measures between individuals who fall and recover after an unexpected slip. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of Biomechanics*, Rochester, Minnesota, August 8-11, 2018.
5. Hill, C.M., Wilson, S.J., Mouser, J.G. & **Chander, H.** Repeated motor control testing decreases co-contraction index in healthy young adults. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of Biomechanics*, Rochester, Minnesota, August 8-11, 2018.
6. **Chander, H.**, Knight, A.C., Garner, J.C., Wade, C., DeBusk, H., Wilson, S.J., Gdovin, J.R., Hill, C.M. & Carruth, D.W. Muscle Activity during Postural Stability Tasks: Role of Military Footwear and Workload. *Proceedings of the American Society of Biomechanics Annual Conference*, Boulder CO, August 8-11, 2017.
7. Wilson, S.J., **Chander, H.**, Knight, A.C., Garner, J.C., Wade, C., Luginsland, L., Hill, C.M., Gdovin, J.R., DeBusk, H. & Carruth, D.W. Lower extremity kinematics in military footwear during slip events. *Proceedings of the American Society of Biomechanics Annual Conference*, Boulder CO, August 8-11, 2017.
8. Luginsland, L., **Chander, H.**, Wade, C., Garner, J.C., Eason, J.D., Wilson, S.J., Gdovin, J.R., Hill, C.M., Knight, A.C., Carruth, D.W. Influence of Occupational Footwear on Muscle Activity during a Simulated Extended Time-Duration. *Proceedings of the American Society of Biomechanics Annual Conference*, Boulder CO, August 8-11, 2017.
9. Hill, C.M., DeBusk, H., Wilson, S.J., Gdovin, J.R., Williams, C.C., Luginsland, L., Knight, A.C. and **Chander, H.** Influence of military type footwear and workload on co-contraction index in unilateral stance. *Proceedings of the American Society of Biomechanics Annual Conference*, Boulder CO, August 8-11, 2017.
10. Simpson, J.D., DeBusk, H., Hill, C.M., Miller, B.L., Knight, A.C. and **Chander, H.** Effect of military footwear type on ankle stability following a simulated military workload. *Proceedings of the American Society of Biomechanics Annual Conference*, Boulder CO, August 8-11, 2017.
11. **Chander, H.**, Garner, J.C., Wade, C., Knight, A.C., Wilson, S.J. & Fu, Y.C. Human Balance in Occupational Footwear with an Extended Duration Workload. Abstracted: *Proceedings of the American Society of Biomechanics Annual Meeting*, Raleigh, NC, August 2-5, 2016.
12. DeBusk, H., Hill, C.M., Stewart, T., Miller, B.L., Simpson, J.D., Knight, A.C. & **Chander, H.** Impact of High Top Military Type Boots on Balance. Abstracted: *Proceedings of the American Society of Biomechanics Annual Meeting*, Raleigh, NC, August 2-5, 2016.
13. Hill, C.M., DeBusk, H., Stewart, T., Miller, B.L., Simpson, J.D., Knight, A.C. & **Chander, H.** Impact of Military Type Footwear and Workload on Co-Contraction Index in Static Balance. Abstracted: *Proceedings of the American Society of Biomechanics Annual Meeting*, Raleigh, NC, Aug 2-5, 2016.

14. Eason, J.D., Wilson, S.J., Gdovin, J.R., Williams, C.C., Hoke, E.L., **Chander, H.** & Garner, J.C. Effects of whole body vibration on maximal voluntary isometric contraction and percent muscle activation during balance perturbations. Abstracted: *Proceedings of the American Society of Biomechanics Annual Meeting*, Raleigh, NC, August 2-5, 2016.
15. Wilson, S.J., Gdovin, J.R., Williams, C.C., Eason, J.D., **Chander, H.** & Garner, J.C. Applications of Whole Body Vibration: Are Spinal Modifications Playing a Role? Abstracted: *Proceedings of the American Society of Biomechanics Annual Meeting*, Raleigh, NC, August 2-5, 2016.
16. **Chander, H.**, Wade, C., Knight, A.C. & Garner, J.C. Lower Extremity Joint kinematics in Alternative Footwear during Slip Events. *Proceedings of the American Society of Biomechanics Annual Conference*, Columbus, OH Aug 5th -8th 2015.
17. Wilson, S.J., **Chander, H.**, Morris, C.E., Garner, J.C., Waddell, D.E. & Wade, C. Alternative Footwear's Influence on Muscle Activation Patterns of the Lower Leg following a One Mile Walk. *Proceedings of the American Society of Biomechanics Annual Conference*, Columbus, OH Aug 5th -8th 2015.
18. **Chander, H.**, Wade, C., Allen, C.R., Cazas, V.L., Lundahl, J. & Garner, J.C. Muscle Activity during Balance Perturbations in Occupational Footwear. *Proceedings of the American Society of Biomechanics Annual Conference and World Congress of Biomechanics*, Boston, MA, July 6-11, 2014.
19. **Chander, H.**, Wade, C., Dabbs, N.C., Allen, C.R., Cazas, V.L., Lundahl, J. & Garner, J.C. The Effect of Occupational Footwear on Dynamic Balance. *Proceedings of the American Society of Biomechanics Annual Meeting*, Omaha, NE, Sept 4-7, 2013.
20. **Chander, H.**, Garner, J.C., Wade, C., Roche, J., Dabbs, N.C. & MacNeill, R.L. The Effect of extended durations of walking in occupational footwear. *Proceedings of the American Society of Biomechanics*, Gainesville, FL, 2012.
21. **Chander, H.**, Wade, C., Garner, J.C., Garten, R. & Acevedo, E. The Influence of Firefighter Boot Type on Postural Measures. *Proceedings of the American Society of Biomechanics*, Long Beach, CA, 2011.

International Conference on Applied Human Factors and Ergonomics

22. Burch, R. F., Strawderman, L., Piroli, A., **Chander, H.**, Tian, W., & Murphy, F. (2019, July). The Importance of Baselineing Division 1 Football Athlete Jumping Movements for Performance, Injury Mitigation, and Return to Play. In *International Conference on Applied Human Factors and Ergonomics* (pp. 332-344), Advances in Social and Occupational Ergonomics. AHFE 2019. Advances in Intelligent Systems and Computing, vol 970. Springer, Cham.
https://doi.org/10.1007/978-3-030-20145-6_33

ASME International Mechanical Engineering Congress and Exposition:

23. Stranburg, T., Liu, Y., **Chander, H.** & Knight, A.C. (2018). Computational Design and Analysis of Nitinol-Based Arch Wedge Support. ASME 2018 Proceedings. Volume 13: Design, Reliability, Safety, and Risk, Paper No. IMECE2018-86287, pp. V013T05A001; 8 pages. Pittsburgh, Pennsylvania, USA, November 9–15, 2018. <https://doi.org/10.1115/IMECE2018-86287>

Human Factors and Ergonomics Society (HFES):

24. DeBusk, H., Babski-Reeves, K. & **Chander, H.** (2017). Preliminary Analysis of StrongArm® Ergoskeleton on Knee and Hip Kinematics and User Comfort. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. Vol. 61, No. 1, pp. 1346-1350. Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/1541931213601820>

American College of Sports Medicine (ACSM):

25. Stewart, E.M., Simebush, M., Simpson, J.D., Knight, A.C., **Chander, H.** & Shapiro, R. (2019). Quantification of Ground Reaction Forces for Skilled Versus Recreational Baseball Hitting: 2844 Board #1 May 31 3: 15 PM-5.15 PM. *Medicine & Science in Sports & Exercise*, 51(6), 780.
26. Wilson, S., Donahue, T., Hill, C., Williams, C., Simpson, J., **Chander, H.**, ... & Pascal, J. (2019). Novel Evidence of Cortical Control in Severe Slip Responses: 2495: Board# 159 May 31 9: 30 AM-11: 00 AM. *Medicine & Science in Sports & Exercise*, 51(6), 689.
27. Pascal, J., Donahue, T., Hill, C., Williams, C., Simpson, J., **Chander, H.**, ... & Johnson, A. (2019). Lead Leg Corrective Responses to Varying Slip Severity: 2491: Board# 155 May 31 9: 30 AM-11: 00 AM. *Medicine & Science in Sports & Exercise*, 51(6), 687.
28. Crawford, A. L., Donahue, T., Hill, C., Williams, C., Simpson, J., **Chander, H.**, ... & Haynes, A. (2019). Examination of the Influence of Lead Leg Recovery Mechanics on Slip Induced Outcomes: 2490: Board# 154 May 31 9: 30 AM-11: 00 AM. *Medicine & Science in Sports & Exercise*, 51(6), 687.
29. Haynes, A., Donahue, T., Hill, C., Williams, C., Simpson, J., **Chander, H.**, ... & Lewis, K. (2019). The Effects of Postural Control Measures on Induced Slip Outcomes: 2494: Board# 158 May 31 9: 30 AM-11: 00 AM. *Medicine & Science in Sports & Exercise*, 51(6), 688-689.
30. Sharp, D. W., Pace, M. T., Swain, J. C., Albino, R. T., Green, J. M., Killen, L. G., ... **Chander, H.** & O'Neal, E. K. (2019). Minimalist Style Military Boot Does Not Improve Walking Economy Under Load In Trained Males: 3486: Board# 174 June 1 8: 00 AM-9: 30 AM. *Medicine & Science in Sports & Exercise*, 51(6), 958-959.
31. O'Neal, E. K., Pace, M. T., Swain, J. C., Albino, R. T., Green, J. M., Killen, L. G., ... & **Chander, H.** (2019). Minimalist Style Military Boot Improves Running Economy Under Load In Trained Males: 1042: Board# 276 May 29 2: 00 PM-3: 30 PM. *Medicine & Science in Sports & Exercise*, 51(6), 276-277.
32. Price, F. G., Turner, A., Krings, B., Waldman, H., **Chander, H.**, Knight, A., ... & McAllister, M. (2019). Can High Intensity Interval Training Effect Division I College 800/1500m Runner's Performance: 797: Board# 31 May 29 2: 00 PM-3: 30 PM. *Medicine & Science in Sports & Exercise*, 51(6), 195.
33. Morris, C.E., Winchester, L.J., Hussey, A.J., Tomes, A.S., Neal, W.A., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., **Chander, H.** & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Physiological Strain Index and Blood Pressure. *American College of Sports Medicine Annual Meeting*, Minneapolis, MN, May 29 – June 2, 2018.
34. Neal, W.A., Morris, C.E., Winchester, L.J., Hussey, A.J., Tomes, A.S., Wilcoxon, D.M., Anderson, M.N., Lucas, D.N., **Chander, H.** & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Perceived Exertion and Blood Lactate. *American College of Sports Medicine Annual Meeting*, Minneapolis, MN, May 29 – June 2, 2018.

35. Tomes, A.S., Morris, C.E., Winchester, L.J., Hussey, A.J., Neal, W.A., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., **Chander, H.** & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Immune System Markers of Physiological Stress and Inflammation. *American College of Sports Medicine Annual Meeting*, Minneapolis, MN, May 29 – June 2, 2018.
36. Hussey, A.J., Morris, C.E., Winchester, L.J., Neal, W.A., Tomes, A.S., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., **Chander, H.** & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Reaction Time. *American College of Sports Medicine Annual Meeting*, Minneapolis, MN, May 29 – June 2, 2018.
37. Wiczynski, T.L., Morris, C.E., **Chander, H.**, Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. The Relationship of Weight Loss and Balance Performance Following an Exercise Intervention in Previously Sedentary Overweight Adults. *Medicine & Science in Sports & Exercise* 49 (5S), 926-927, 2017.
38. Morris, C.E., **Chander, H.**, Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. Evaluating Perturbations to Human Balance Following an Exercise Intervention in Previously Sedentary, Overweight Adults. *Medicine & Science in Sports & Exercise* 49 (5S), 655, 2017.
39. Dispennette, A.K., Morris, C.E., **Chander, H.**, Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. Impact of an Exercise Intervention on Human Balance Center of Pressure Sway Parameters in Previously Sedentary, Overweight Adults. *Medicine & Science in Sports & Exercise* 49 (5S), 657, 2017.
40. Garner, J.C., **Chander, H.**, Morris, C.E., Wilson, S.J. & Wade, C. Impact of Alternative Footwear on Balance Perturbations. *Medicine & Science in Sports & Exercise* 47 (5S), 250-251, 2015.
41. Wilson, S.J., **Chander, H.**, Morris, C.E., Wade, C. & Garner, J.C. Alternative Footwear's Influence on Static Balance Following a One Mile Walk. *Medicine & Science in Sports & Exercise* 47 (5S), 292, 2015.
42. DeBusk, H., **Chander, H.**, Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., Hill, C.M., Wade, C. & Garner, J.C. The Effect of Commonly Used Alternative Footwear on Balance. *Medicine & Science in Sports & Exercise* 47 (5S), 294, 2015.
43. Hill, C.M., **Chander, H.**, Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., DeBusk, H., Wade, C. & Garner, J.C. Impact of Low Intensity Workload on Muscle Exertion in Alternative Footwear. *Medicine & Science in Sports & Exercise* 47 (5S), 251, 2015.
44. Dabbs, N.C., **Chander, H.**, Black, C.D., Loftin, M., Valliant, M., Brown, L.E. & Garner, J.C. Effects of Whole Body Vibration on Voluntary Torque Following Exercise Induced Muscle Damage in Recreationally Trained Females. *Medicine & Science in Sports & Exercise*, 47(5S), 355, 2015.
45. Cazas-Moreno, V. L., **Chander, H.**, Allen, C. R., Garner, J. C., Gdovin, J. R., & Williams, C. C. (2015). The Influence of Whole-body Vibration on Rate of Force Development during an Isometric Clean Pull. *Medicine & Science in Sports & Exercise*, 47(5S), 782, 2015.
46. Garner, J.C., **Chander, H.**, Wade, C., Dabbs, N.C., Allen, C.R., Cazas, V.L., Lundahl, J., Borland, C.E. The Influence of Occupational Footwear on Lower Extremity Muscle Activity during Balance Perturbations. *Medicine and Science in Sports and Exercise* 46 (5), 692-692, 2014.
47. Garner, J.C., **Chander, H.**, Wade, C., Dabbs, N.C., Waddell, D.E. & Lundahl, J. Impacts of Muscle Activity while Walking in Occupational Footwear. Abstracted: *Medicine & Science in Sports & Exercise* 45 (5), 677-677, 2013.

48. Dabbs, N.C., **Chander, H.**, Lundahl, J., Allen, C.R. & Garner, J.C. The Effects of Whole Body Vibration on Vertical Jump Height and Peak Power. *Medicine and Science in Sports and Exercise*, 45 (5), 592-592, 2013.
49. Dabbs, N.C., Garner, J.C., Ricks, R.C., **Chander, H.**, Wilkerson, C. & Young, J. The Influence of different weighted warm-up bats on swinging performance. *Medicine and Science in Sports and Exercise* 44, 573-573, 2012.
50. Garner, J.C., **Chander, H.**, Dabbs, N.C., Roche, J. & Wade, C. The Influence of occupational footwear on balance. *Medicine & Science in Sports & Exercise* 44, 329-329, 2012.

National Strength Conditioning Association (NSCA):

51. Wilson, S.J., Gdovin, J.R., Williams, C.C., Eason, J.D., Luginland, L., Hill, C.M., Donahue, P.T., Hoke, E.L., **Chander, H.**, Garner, J.C. More Than a Foot Wedge – Golf Footwear and Postural Control. Abstracted: *Journal of Strength & Conditioning Research*, 30(5), 2017.
52. Garner, J.C., Wilson, S.J., Gdovin, J.R., Williams, C.C., Eason, J.D., Hoke, E.L., Hill, C.M. & **Chander, H.** The Influence of Golf Specific Footwear on Postural Equilibrium and Latencies. Abstracted: *Journal of Strength & Conditioning Research*, 30(5), 2017.
53. Dabbs, N.C., **Chander, H.**, Moreno, V.L., Brown, L.E. & Garner, J.C. Effects of Whole Body Vibration on Muscle Activity during Maximal Voluntary Isometric Contraction Following Exercise Induced Muscle Damage. *NSCA Annual Meeting*, Las Vegas, NV, July 9-12, 2014. *Journal of Strength and Conditioning Research*, Vol 28, (12), 82, Dec 2014.
54. Moreno, V.L., **Chander, H.**, MacDonald, C.J., Dabbs, N.C., Allen, C.R., Lamont, H.S. & Garner, J.C. Differences in Reaction Time between Female Collegiate Athletes. *NSCA Annual Meeting*, Las Vegas, NV, July 9-12, 2014. *Journal of Strength and Conditioning Research*, Vol 28, (12), 90, Dec 2014.
55. Allen, C.R., Hatchett, A., Lundahl, J., Turnage, B., **Chander, H.**, Cazas, V.L., Garner, J.C. & Arpin, R. An Exploratory Examination of The Relationship Between Traditional Pushups, Hand-Release Pushups, And One-Repetition Maximum Bench Press Performance. *NSCA Annual Meeting*, Las Vegas, NV, July 9-12, 2014. *Journal of Strength and Conditioning Research*, Vol 28, (12), 88, Dec 2014.
56. Dabbs, N.C., **Chander, H.**, Allen, C.R., Lundahl, J., Cazas, V.L., Hilton, M.S., Italia, M.A. & Garner, J.C. The Effects of Whole-body Vibration on Ground Reaction Forces and Rate of Force Development in College Aged Females. *NSCA Annual Meeting*, Las Vegas, NV, July 11-13, 2013. *Journal of Strength and Conditioning Research*, Vol 27, (10), S73-74, Oct 2013.
57. Allen, C.R., Lundahl, J., **Chander, H.**, Zachay, C., Dabbs, N.C. & Garner, J.C. The Acute Effects of a Performance Mouthpiece on Whole Body Reaction Time to Balance Perturbations. *NSCA Annual Meeting*, Las Vegas, NV, July 11-13, 2013. *Journal of Strength and Conditioning Research*, Vol 27, (10), S10, Oct 2013.
58. Cazas, V.L., Brown, L.E., Coburn, J.W., Galpin, A.J., Tufano, J.J., Garner, J.C., Dabbs, N.C. & **Chander, H.** Influences of Rest Intervals Following Assisted Jumping on Peak Velocity, Rate of Velocity Development & Rate of Force Development. *NSCA Annual Meeting*, Las Vegas, NV, July 11-13, 2013. *Journal of Strength and Conditioning Research*, Vol 27, (10), S129-130, Oct 2013.

59. Dabbs, N.C., Garner, J.C., **Chander, H.** & Brown, L.E. Three-Dimensional Examination of the Influence of Different Weighted Warm-up Bats on Swing Kinematics. *NSCA Annual Meeting* July 6-9, 2012. *Journal of Strength and Conditioning Research*, Vol 27, Suppl 4, S3-4, Apr 2013.
60. Lamont, H.S., Garner, J.C., Macdonald, C.J., Gentles, J., **Chander, H.**, Kavanaugh, A., Miziguchi, S. & Stone, M.H. The Acute Effects Of 12 Combinations of MVCs And WBV Exposures Upon Peak Ground Reaction Forces During CMVJs Over A 15 Minute Period. NSCA Annual Meeting, Las Vegas, July 2011. *Journal of Strength and Conditioning Research*, Vol 26, Suppl 1, S65, Feb 2012.
61. MacDonald, C.J., Lamont, H.S., Garner, J.C., **Chander, H.**, Gray, H., Gentles, J., Kavanaugh, A., Israetel, M., Carter, C., Mizuguchi, S., Hornsby, W. & Stone, M.H. Comparisons between Body Composition and Power Production during Jumps in Collegiate Female Athletes. NSCA Annual Meeting, Las Vegas, July 2011. *Journal of Strength and Conditioning Research*, Vol 26, Suppl 1, S56, Feb 2012.

Gait and Clinical Movement Analysis Society (GCMAS):

62. **Chander, H.**, Garner, J.C., Wade, C. & Knight, A.C. Impact of Alternative Footwear on Lower Extremity Muscle Activity during Normal and Slippery Gait. *Annual Proceedings of the Gait and Clinical Movement Analysis Society*. Memphis, TN, May 17-20, 2016.

International Society of Posture and Gait Research (ISPGR):

63. Waddell, D.E., **Chander, H.**, Brewer, C.B. Exploring measures to better assess the effect of cold on dynamic balance in a young and older female population. *International Society for Posture & Gait Research. 2014 ISPGR World Congress*, Vancouver, Canada, June 29-July 3, 2014.

South East and South West American College of Sports Medicine (SEACSM and SWACSM):

64. Arnett, J.E., Simpson, J.D., Cosio-Lima, L., Lee, Y., Rendos, N.K., Stewart, E.M., **Chander, H.**, & Knight, A.C. Ground reaction forces during single-leg drop landings on an inverted surface. *Southeast American College of Sports Medicine Annual Conference*. Greenville, SC. February 14-16, 2019.
65. Simpson, J.D., Stewart, E.M., Turner, A.J., Rendos, N.K., Lee, Y., Cosio-Lima, L., **Chander, H.**, Knight, A.C. Chronic ankle instability alters spatiotemporal postural control during a lateral step-down test. *Southeast American College of Sports Medicine Annual Conference*. Greenville, SC. February 14-16, 2019.
66. Grammer, E.E., Simpson, J.D., Cosio-Lima, L., Lee, Y., Rendos, N.K., Stewart, E.M., **Chander, H.**, Knight, A.C. Latency of the peroneus longus and peroneus brevis during unexpected and expected inversion perturbations. *Southeast American College of Sports Medicine Annual Conference*. Greenville, SC. February 14-16, 2019.
67. Lewis, J.T., Simpson, J.D., Rendos, N.K., Lee, Y., Cosio-Lima, L., Stewart, E.M., **Chander, H.**, Knight, A.C. Assessment of ankle muscle activity during unexpected and expected inversion perturbations. *Southeast American College of Sports Medicine Annual Conference*. Greenville, SC. February 14-16, 2019.
68. Simpson, J., Rendos, N., Stewart, E., Koldenhoven, R., Macias, D., Wilson, S., **Chander, H.**, & Knight, A.C. Anticipating inversion perturbations during drop landings results in frontal plane kinematic alterations. *International Ankle Symposium*, Amsterdam, The Netherlands. October 3-4, 2019.

69. Turner, A.J., **Chander, H.**, Morris, C.E., Wilson, S.J., Buckner, M., Knight, A.C., Wade, C. & Garner, J.C. Postural Strategy during Sensory Organization Test when Exposed to Alternative Footwear and Workload. *Southeast American College of Sports Medicine*, Greenville, SC, 2019.
70. Kodithuwakku Arachchige, S.N.K., **Chander, H.**, Knight, A.C., Wilson, S.J., Wade, C., Garner, J.C. & Carruth, D.W. Ground reaction forces during slip events: Impact of military footwear and load carriage. South East American College of Sports Medicine Annual Conference, Greenville, SC. February 14-16, 2019
71. Stewart, E.M., Smidebush, M., Simpson, J.D., Knight, A.C., **Chander, H.** & Shapiro, R. Analysis of the start times for the swing phases for baseball hitters of varying skill. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
72. Simpson, J.D., Stewart, E.M., Smidebush, M., Knight, A.C., **Chander, H.** & Shapiro, R. Analysis of vertical ground reaction forces during the baseball swing in hitters of different skill level. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
73. Price, F.G., Turner, A.J., Krings, B.M., Waldman, H.S., **Chander, H.**, Knight, A.C., McAllister, M.J. & Smith, J.W. Impact of high-intensity interval training on division I college 800m/1500m runner's performance. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
74. Tomes, A.S., Morris, C.E., Winchester, L.J., Hussey, A.J., Neal, W.A., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., **Chander, H.** & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Immune System Markers of Physiological Stress and Inflammation. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
75. Wilcoxon, D.M., Morris, C.E., Winchester, L.J., Hussey, A.J., Neal, W.A., Tomes, A.S., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., **Chander, H.** & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Physiological Strain Index And Blood Pressure. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
76. Hussey, A.J., Morris, C.E., Winchester, L.J., Neal, W.A., Tomes, A.S., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., **Chander, H.** & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Reaction Time. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
77. Neal, W.A., Morris, C.E., Winchester, L.J., Hussey, A.J., Tomes, A.S., Wilcoxon, D.M., Anderson, M.N., Bradshaw, W.J., Lucas, D.N., **Chander, H.** & Arnett, S.W. Effect of a Simulated Tactical Occupation Stressor on Perceived Exertion. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
78. Sutton, P.E., **Chander, H.**, Knight, A.C., Turner, A.J., Garner, J.C., Wade, C. & Carruth, D.W. Co-Contraction Index of Lower Extremity Muscles During Multiple Slip Events: Role of Footwear. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
79. Turner, A.J., Hill, C.M., DeBusk, H., **Chander, H.**, Knight, A.C., Wilson, S.J., Williams, C.C. & Luginsland, L. Impact of Military Type Footwear and Workload on Percent Muscle Activation in

- Unilateral Static Balance. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
80. Shepherd, B.D., Krings, B.M., Williamson, P.L., Swain, J.C., Turner, A.J., Waldman, H.S., **Chander, H.**, McAllister, M.J., Smith, J.W. & Knight, A.C. Effects of Fat Gripz™ on Muscle Activity and Performance during Deadlift and Bent-Over Row Exercises. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
81. Hill, C.M., Wilson, S.J., Mouser, J.G., Williams, C.C., Luginsland, L., Donahue, P.T., **Chander, H.** Impact of Repeated Balance Perturbations on Lower Extremity Mean Muscle Activity. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
82. Wilson, S.J., Hill, C.M., Mouser, J.G., Williams, C.C., Luginsland, L., Donahue, P.T., Garner, J.C., **Chander, H.** Can Postural Responses Be Learned? *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
83. Garner JC, Hill CM, Wilson SJ, Mouser JG, Williams CC, Luginsland LA, Donahue PT, **Chander H.** Influence of Repeated Motor Control Tests on Proximal Lower Extremity Musculature Activation. *Southeast American College of Sports Medicine Annual Conference*, Chattanooga, TN. February 15-17, 2018.
84. Simpson, J.D., Miller, B.L., O'Neal, E.K., **Chander, H.** & Knight, A.C. Analysis of Landing Kinetics During a Drop Vertical Jump After Three Weeks of External Load Training. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
85. Forge, S.R., Simpson, J.D., Miller, B.L., O'Neal, E.K., **Chander, H.** & Knight, A.C. Changes in Jumping Kinetics Following Three Weeks of External Load Training in Well-Trained Women. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
86. Sutton, P., Forge, S.R., Mosby, A., McDaniel, J., Miller, B.L., Simpson, J.D., **Chander, H.** & Knight, A.C. Three-Week External Load Training Does Not Improve Vertical Jump and Sprint Performance in Well-Trained Women *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
87. Mosby, A., Sutton, P., Forge, S.R., McDaniel, J., Miller, B.L., Simpson, J.D., **Chander, H.** & Knight, A.C. Three-Weeks of External Load Training Does Not Alter Muscle Activity During Static Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
88. McDaniel, J., Forge, S.R., Sutton, P., Mosby, A., Miller, B.L., Simpson, J.D., **Chander, H.** & Knight, A.C. Three Week External Load Training Does Not Increase Lower Extremity Muscle Activation in Well-Trained Females. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
89. Swain, J.C., Miller, B.L., Pace, M.T., Lowell, R.K., Simpson, J.D., Knight, A.C. & **Chander, H.** Impact of Minimalist Footwear Type and Fatigue on Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
90. Turner, A.J., DeBusk, H., Lowell, R.K., Hill, C.M., Miller, B.L., Simpson, J.D., Knight, A.C. & **Chander, H.** Effects of Military Type Footwear and Workload on Unilateral Static Balance.

Southeast American College of Sports Medicine Annual Conference, Greenville, SC, Feb 16-18, 2017.

91. Miller, B.L., Simpson, J.D., Swain, J.C., Pace, M.T., Lowell, R.K., Pan. Z., Knight, A.C. & **Chander, H.** Effect of Minimalist Footwear and Fatigue on Static Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
92. Dispennette, A.K., Morris, C.E., **Chander, H.**, Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. Impact of an Exercise Intervention on Human Balance Center of Pressure Sway Parameters in Previously Sedentary, Overweight Adults. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
93. Eason, J.D., Wilson, S.J., Gdovin, J.R., Williams, C.C., Hoke, E.L., Luginsland, L., Hill, C.M., Donahue, P.T., **Chander, H.**, Wade, C. & Garner, J.C. The Effects of Golf Shoe Type on Balance Equilibrium Scores. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
94. Gdovin, J.R., Wilson, S.J., Williams, C.C., Eason, J.D., Hoke, E.L., Luginsland, L., Hill, C.M., Donahue, P.T., Davis, R.E., **Chander, H.**, Wade, C. & Garner, J.C. The Acute Effects of Golf Specific Footwear on Reaction Time Latencies. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
95. Hoke, E.L., Wilson, S.J., Gdovin, J.R., Williams, C.C., Eason, J.D., Luginsland, L., Hill, C.M., Donahue, P.T., **Chander, H.**, Wade, C., Green, M. & Garner, J.C. Acute Effects of Golf Specific Footwear on Bilateral Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
96. Luginsland, L., Wilson, S.J., Gdovin, J.R., Williams, C.C., Eason, J.D., Hoke, E.L., Hill, C.M., Donahue, P.T., **Chander, H.**, Wade, C. & Garner, J.C. The Acute Influence of Golf Specific Footwear on Balance Equilibrium Scores. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
97. Morris, C.E., **Chander, H.**, Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. Evaluating Perturbations to Human Balance Following an Exercise Intervention in Previously Sedentary, Overweight Adults. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
98. Pearson, R.C., Morris, C.E., **Chander, H.**, Wilson, S.J., Loftin, M., Wade, C. & Garner, J.C. Impact of Alternative Footwear on Human Energy Expenditure. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
99. Wiczynski, T.L., Morris, C.E., **Chander, H.**, Garner, J.C., DeBusk, H., Owens, S.G., Valliant, M.W. & Loftin, M. The Relationship of Weight Loss and Balance Performance Following an Exercise Intervention in Previously Sedentary Overweight Adults. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
100. Williams, C.C., Wilson, S.J., Gdovin, J.R., Eason, J.D., Hoke, E.L., Luginsland, L., Hill, C.M., Donahue, P.T., Davis, R.E., **Chander, H.**, Wade, C. & Garner, J.C. The Influence of Golf Specific Footwear on Whole Body Reaction Times. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.
101. Wilson, S.J., Gdovin, J.R., Williams, C.C., Eason, J.D., Hoke, E.L., Luginsland, L., Hill, C.M., Donahue, P.T., **Chander, H.**, Wade, C., Green, M. & Garner, J.C. The Effects of Golf Specific

Footwear on Human Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 16-18, 2017.

102. **Chander, H.**, Garner, J.C., Wade, C., Knight, A.C., DeBusk, H. & Hill, C.M. (2016). Lower Extremity Muscle Activity in Alternative Footwear During Slip Events: A Preliminary Analysis. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
103. DeBusk, H., Hill, C.M., Stewart, T., Miller, B.M., Simpson, J.D., Knight A.C. & **Chander, H.** Effects of Military Type Footwear and Workload on Static Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
104. Hill, C.M., DeBusk, H., Stewart, T., Simpson, J.D., Miller, B.L., Knight, A.C. & **Chander, H.** Impact Of Military Type Footwear and Workload on Muscle Activity in Static Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC February 18-20, 2016.
105. Miller, B.L., DeBusk, H., Hill, C.M., Stewart, T., Simpson, J.D., Knight, A.C. & **Chander, H.** (2016). Impact of Military Boot Type and Physical Work Load on Dynamic Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
106. Simpson, J.D., Hill, C.M., DeBusk, H., Stewart, T., Miller, B.L., Knight, A.C. & **Chander, H.** Influence of Military Boot Types and Physiological Workload on Lower Extremity Muscle Activation. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
107. Stewart, T., Kimble, A., Brown, J., Holmes, M.E., **Chander, H.** & Knight, A.C. Effects of event specialty, Gender and leg dominance on running kinetics of high school track and field athletes. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
108. Wilson, S.J., **Chander, H.**, Wade, C., Cazas-Moreno, V.L., Gdovin, J.R., Williams, C.C. & Garner, J.C. Ankle Kinematics in Alternative Footwear during Slip Events. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
109. Gdovin, J.R., **Chander, H.**, Wade, C., Wilson, S.J., Cazás-Moreno, V.L., Williams, C.C. & Garner, J.C. Occupational Footwear's Effect on Balance. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
110. Williams, C.C., **Chander, H.**, Wade, C., Wilson, S.J., Cazás-Moreno, V.L., Gdovin, J.R. & Garner, J.C. Footwear Design Characteristic's Impact on Lower Extremity Muscle Activity. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, February 18th - 20th, 2016.
111. **Chander, H.**, Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., Wade, C. & Garner, J.C. Impact of Alternative Footwear on Balance Perturbations. *Southeast American College of Sports Medicine Annual Conference*, Jacksonville, FL, February 12-14, 2015.
112. Wilson, S.J., **Chander, H.**, Morris, C.E., Wade, C. & Garner, J.C. Alternative Footwear's Influence on Static Balance Following a One Mile Walk. *Southeast American College of Sports Medicine Annual Conference*, Jacksonville, FL, February 12-14, 2015.
113. DeBusk, H., **Chander, H.**, Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., Hill, C.M., Wade, C. & Garner, J.C. The Effect of Commonly Used Alternative Footwear on Balance.

Southeast American College of Sports Medicine Annual Conference, Jacksonville, FL, February 12-14, 2015.

114. Hill, C.M., **Chander, H.**, Morris, C.E., Wilson, S.J., Knight, A.C., Holmes, M.E., DeBusk, H., Wade, C. & Garner, J.C. Impact of Low Intensity Workload on Muscle Exertion in Alternative Footwear. *Southeast American College of Sports Medicine Annual Conference*, Jacksonville, FL, February 12-14, 2015.
115. Kimble, A., Brown, J., Stewart, T., **Chander, H.**, Holmes, M.E. & Knight, A.C. Influence of Event, Gender, and Leg Dominance on Balance among 1 High School Track and Field Athletes. *Southeast American College of Sports Medicine Annual Conference*, Jacksonville, FL, February 12-14, 2015.
116. Stewart, T., Brown, J., Kimble, A., **Chander, H.**, Holmes, M.E. & Knight, A.C. Influence of Event, Gender, and Leg Dominance on Balance among 1 High School Track and Field Athletes. *Southeast American College of Sports Medicine Annual Conference*, Jacksonville, FL, February 12-14, 2015.
117. Dabbs, N.C., **Chander, H.**, Cazas, V.L., Allen, C.R., Lundahl, J., Terrell, E. & Castles, C., Brown, L.E. & Garner, J.C. Effects of Whole Body Vibration on Vertical Jump Height and Power Output Following Exercise Induced Muscle Soreness in Women. *Southwest American College of Sports Medicine Annual Conference*, Newport Beach, CA, Oct 18-19, 2013.
118. **Chander, H.**, Garner, J.C., Wade, C., Dabbs, N.C., Waddell, D.E. & Lundahl, J. Impacts of Muscle Activity while Walking in Occupational Footwear. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 14-16, 2013.
119. Dabbs, N.C., **Chander, H.**, Lundahl, J., Allen, C.R. & Garner, J.C. The Effects of Wholebody Vibration on Vertical Jump Height and Peak Power. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 14-16, 2013.
120. Lundahl, J., Allen, C.R., Dabbs, N.C., **Chander, H.** & Garner, J.C. The Acute Effects of a performance Mouthpiece on Measures of strength and power. *Southeast American College of Sports Medicine Annual Conference*, Greenville, SC, Feb 14-16, 2013.

Mid-South Biomechanics Conference:

121. Turner, A.J., **Chander, H.**, Morris, C.E., Wilson, S.J., Buckner, M., Knight, A.C., Wade, C. & Garner, J.C. Postural Strategy during Sensory Organization Test when Exposed to Alternative Footwear and Workload. *Mid-South Biomechanics Conference*, Memphis, TN. February 21-22, 2019.
122. Kodithuwakku Arachchige, S.N.K., **Chander, H.**, Knight, A.C., Wilson, S.J., Wade, C., Garner, J.C. & Carruth, D.W. Ground reaction forces during slip events: Impact of military footwear and load carriage. *Mid-South Biomechanics Conference*, Memphis, TN. February 21-22, 2019.
123. Sutton, P.E., **Chander, H.**, Knight, A.C., Turner, A.J., Garner, J.C., Wade, C. & Carruth, D.W. Co-Contraction Index of Lower Extremity Muscles During Multiple Slip Events: Role of Footwear. *Mid-South Biomechanics Conference*, Memphis, TN. February 22-23, 2018.
124. Turner, A.J., Hill, C.M., DeBusk, H., **Chander, H.**, Knight, A.C., Wilson, S.J., Williams, C.C. & Luginsland, L. Impact of Military Type Footwear and Workload on Percent Muscle Activation in Unilateral Static Balance. *Mid-South Biomechanics Conference*, Memphis, TN. February 22-23, 2018.

- 125. Hill, C.M., Wilson, S.J., Mouser, J.G., Williams, C.C., Luginsland, L., Donahue, P.T., **Chander, H.** Impact of Repeated Balance Perturbations on Lower Extremity Mean Muscle Activity. *Mid-South Biomechanics Conference*, Memphis, TN. February 22-23, 2018.
- 126. Stewart, E.M., Smidebush, M., Simpson, J.D., Knight, A.C., **Chander, H.** & Shapiro, R. Analysis of the start times for the swing phases for baseball hitters of varying skill. *Mid-South Biomechanics Conference*, Memphis, TN. February 22-23, 2018.
- 127. Kodithuwakku Arachchige, S.N.K., **Chander, H.**, Knight, A.C, & Pan, Z. Impact of foot arch type and quadriceps angle on postural stability: A comparison of two types of Vibram™ Minimalist Footwear. *Mid-South Biomechanics Conference*, Memphis, TN. February 22-23, 2018.

Applied Ergonomics Conference:

- 128. **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. The Use of Stretch Sensors in Detecting Ankle Joint Kinematics during Slips and Trips. The 23rd Annual *Applied Ergonomics Conference*, Louisville, KY, 2020.
- 129. Deb, S., **Chander, H.**, Shojaei, A., Kodithuwakku Arachchige, S.N.K., Hudson, C., Knight, A.C. & Carruth, D.W. Impact of Virtual Reality (VR)-Induced Visual Perturbations on Postural Stability and Fall Risk. The 23rd Annual *Applied Ergonomics Conference*, Louisville, KY, 2020.
- 130. Burch, R.F.V., Luczak, T., Ball, J.E., **Chander, H.**, Knight, A.C., Smith, B.K., Burch, R.F.V., Prabhu, R.K. Closing the Wearable Gap: Replacing Goniometers and (Eventually) 3D Motion Capture with Stretchable Soft Robotic Sensors. The 23rd Annual *Applied Ergonomics Conference*, Louisville, KY, 2020.
- 131. Shelly, Z., Burch, R.F.V., Strawderman, L., **Chander, H.** & May, D. Helmet Prototype Response Time Assessment Using NCAA Division 1 Collegiate Football Athletes. The 23rd Annual *Applied Ergonomics Conference*, Louisville, KY, 2020.

U.S. Patents:

- 1. Burch, R. Luczak, T., Ball, J., **Chander, H.**, & Saucier, D. Wearable Flexible Sensor Motion Capture System. U.S. Patent Application New. No. 16/506,932, filed July 2019 Mississippi State University Technology ID: 2017.1053.
- 2. Burch, R. Luczak, T., Ball, J., **Chander, H.**, & Saucier, D. Humo Base: Ankle Complex Wearable for Kinematic and Kinetic Movement Data Capture and Assessment. U.S. Provisional Pat. App. No. 62/695,602, filed July 2018. Mississippi State University Technology ID: 2017.1053.

RESEARCH GRANTS AND FUNDING:

Research Funding			
	Applied	Acquired	In-Review
External Funding	\$3,385,772.00	\$1,049,365.00	\$518,313.00
Internal Funding	\$142,745.00	\$140,745.00	-
Total	\$3,528,517.00	\$1,190,110.00	\$518,313.00

1. **Department of Labor – Occupational Safety Health Administration (DOL-OSHA) (2020)**
 Strawderman L, Burch RFV, **Chander H**, Wyatt J. Industrial Personal Protective Equipment (PPE) for COVID-19: Training Materials Development.
 Role: Co-PI; Funding: \$75,000.00; Status: In-Review
2. **National Institute of Occupational Safety and Health (NIOSH RO3) (2019-2021)**. Burch RFV, Strawderman L, **Chander H**. Should Wearable Devices be the Next Technology Evolution to Aid Workers During Picking and Putting Tasks? An Investigation into Fatigue, Comfort, and Productivity Impacts of Wearables. Role: Co-PI; Funding: \$149,508.00; Status: In-Review.
3. **National Institute for Occupational Safety and Health (NIOSH) (2020) R21**
Chander H, Deb S & Shojaei A. Development of a virtual reality (VR) based fall prevention training program for roofing construction workers through multi-disciplinary analysis.
 Role: PI; Funding: \$368,320.00; Status: In-Review
4. **National Science Foundation – Partnership for Innovation (NSF-PFI) (2020) NSF Intern DCL Non-Academic Internship Supplement**
 Burch RFV, Ball JE, Smith B, **Chander H**, Knight AC, Prabhu R, Ronay M. From the Ground Up: Using Soft Robotic Sensors to Create a Foot and Ankle Wearable that Accurately Captures Real-time, Kinematic and Kinetic Data During Athletic Training.
 Role: Co-PI; Funding: \$34,930.00; Status: Funded
5. **National Science Foundation – Partnership for Innovation (NSF-PFI) (2019) NSF REU: Supplemental Support**
 Burch RFV, Ball JE, Smith B, **Chander H**, Knight AC, Prabhu R, Ronay M. From the Ground Up: Using Soft Robotic Sensors to Create a Foot and Ankle Wearable that Accurately Captures Real-time, Kinematic and Kinetic Data During Athletic Training.
 Role: Co-PI; Funding: \$16,000.00; Status: Funded
6. **National Science Foundation – Partnership for Innovation (NSF-PFI) (2019) NSF Includes DCL: Traineeship Supplement**
 Burch RFV, Ball JE, Smith B, **Chander H**, Knight AC, Prabhu R, Ronay M. From the Ground Up: Using Soft Robotic Sensors to Create a Foot and Ankle Wearable that Accurately Captures Real-time, Kinematic and Kinetic Data During Athletic Training.
 Role: Co-PI; Funding: \$134,628.00; Status: Funded
7. **Occupational Safety and Health Administration. U.S. Department of Labor.**
 Strawderman S, Burch R & **Chander H**. Lift Truck Safety in Warehousing: Training Materials Development.
 Role: Co-PI; Funding: \$74,993.00; Status: Funded
8. **United States Department of Transportation (DOT).**
 Burch RFV, Strawderman L & **Chander H**. Assessment of Road/Vehicle User Issues in Automated Following for Future Freight Operations. (Sub-Contract through Auburn University).
 Role: Co-PI; Funding: \$427,659.00; Status: Not Funded
9. **National Institute for Occupational Safety and Health (NIOSH) - Pilot Projects Research Training Program (PPRTP) (2019)**
Chander H & Kodithuwakku Arachchige SNK. Prolonged Exposure to Slippery Surface.

Role: PI; Funding: \$12,000.00; Status: Funded

10. **National Science Foundation (NSF-TT) (2019-2021).** Liu Y, **Chander H**, Knight A, Prabhu R, Doude H, Yadollahi A. Using Additive Manufacturing Techniques to Fabricate Foot Orthotics with Enhanced Performance at Reduced Cost. Role: Co-PI; Funding: \$249,948.00; Status: Not Funded.
11. **National Science Foundation – Partnership for Innovation (NSF-PFI) (2018)**
 Burch RFV, Ball JE, Smith B, **Chander H**, Knight AC, Prabhu R, Ronay M. From the Ground Up: Using Soft Robotic Sensors to Create a Foot and Ankle Wearable that Accurately Captures Real-time, Kinematic and Kinetic Data During Athletic Training.
 Role: Co-PI; Funding: \$749,932.00; Status: Funded
12. **College of Education Laboratory Development Grant (2018)**
Chander H. Neuromechanics Laboratory Motion Capture Upgrade
 Role: PI; Funding: \$4665.00; Status: Funded
13. **Office of Research and Economic Development (ORED) UG Research Grant (2018-2019)**
 Knight AC & **Chander H.**
 Role: Co-I; Funding: \$2,000.00; Status: Funded.
14. **SEC Travel Grant (2018-2019)**
Chander H. Research Visit to Auburn’s Occupational Safety, Ergonomics and Injury Prevention.
 Role: PI; Funding: \$1000.00; Status: Funded
15. **National Institute for Occupational Safety and Health (NIOSH) - Pilot Projects Research Training Program (PPRTP) (2018)**
Chander H & Stewart E. Fall prevention in construction and manufacturing.
 Role: PI; Funding: \$12,000.00; Status: Funded
16. **National Science Foundation – I-Corps Program (NSF-I-Corps) (2018)**
 Stranburg T, Liu Y, Bell J & **Chander H.** Customer Discovery and Commercialization for a Novel Performance-Enhancing Foot Orthoses for Military Personnel, Athletes and Others.
 Role: Co-Technical Lead; Funding: \$50,000.00; Status: Funded
17. **MSU COE UG Research Grant (2017-2018)**
Chander H & Knight AC. How do we prevent falls in ergonomics? External perturbation or virtual reality (VR) induced balance training? – A novel approach.
 Role: PI; Funding: \$1,995.00; Status: Funded
18. **MSU COE UG Research Grant (2017-2018)**
 Pan Z, Chen CC, **Chander H**, Knight AC, Lamberth J, Huang M. The Effect of Vision on Variety of Balance Measures in Elderly Adults with and without Parkinson’s Disease
 Role: Co-I; Funding: \$2,000.00; Status: Funded
19. **MSU Cross-College Grant (2017-2018)**
Chander H, Knight AC, Liu Y. Impact of Novel Orthotics in the Military: Material and Human Factors.
 Role: PI; Funding: \$2,000.00; Status: Funded.

- 20. MSU ORED UG Research Grant (2017-2018)**
Knight AC & **Chander H.**
Role: Co-I; Funding: \$2,000.00; Status: Funded.
- 21. National Science Foundation – I Corps Program (NSF I-Corps) (2017)**
Stranburg T, Liu Y, **Chander H** & Knight AC. Design and prototyping of the additive manufactured foot orthoses.
Role: Co-PI; Funding: \$3,000.00; Status: Funded.
- 22. PACCAR Engines Inc. Columbus, MS (2017)**
Babski-Reeves K & **Chander H.** Ergonomic Assessment of Engine Assembly Tasks.
Role: Co-PI; Funding: \$16,875.00; Status: Funded.
- 23. MSU ORED Faculty Research Grant (2016-2017)**
Chander H. American Society of Biomechanics.
Role: Research Talk (Thematic Poster); Funding: \$1,700.00; Status: Funded.
- 24. MSU Cross-College Grant (2016-2017)**
Chander H, Knight AC, Liu Y. Impact of Novel Orthotics in the Military: Material and Human Factors.
Role: PI; Funding: \$2,000.00; Status: Funded.
- 25. Department of Kinesiology Research Funding (2017)**
Chander H. Deep South Center of Occupational Safety Symposium.
Role: Invited Research Presentation; Funding: \$495.00; Status Funded.
- 26. Department of Defense (DOD), Congressionally Directed Medical Research Program (2016)**
Chander H, Knight AC, Shamsei N, Thompson S & Garrison T. Impact of Novel Foot Orthoses in the Military.
Role: PI; Funding: \$497,956.00; Status: Selected at the pre-application level and invited for full application which was not funded.
- 27. Department of Kinesiology Research Funding (2017)**
Chander H. Gait and Clinical Movement Analysis Society.
Role: Research Poster Presentation; Funding: \$500.00; Status Funded.
- 28. CAVS-Kinesiology Collaborative Research Development Grant (2015-2016)**
Carruth D & **Chander H.** Human Performance Lab (HPL) upgrade at CAVS.
Role: Co-PI; Funding: \$100,000.00; Status: Funded.
- 29. Department of Kinesiology Research Funding (2015)**
Chander H. Lab Development.
Role: Co-Director of NM Lab; Funding: \$1,000.00; Status Funded.
- 30. MSU ORED Faculty Research Grant (2015-2016)**
Chander H. American Society of Biomechanics.
Role: Research Poster Presentation; Funding: \$3,000.00; Status: Funded.
- 31. MSU Bagley College of Engineering - Working Group (2016-2017)**

Chander H, Strawderman L, Garrison T, Carruth D, Babski-Reeves K, Knight AC, Smith JW.
Human Factors Working Group.
Role: Co-Director; Funding: \$2,000.00; Status: Funded.

32. National Institute for Occupational Safety and Health (NIOSH) - Pilot Projects Research Training Program (PPRTP) (2015)

Chander H. Biomechanics of Balance, Load Carriage and Slips in Military Footwear.
Role: PI; Funding: \$20,000.00; Status: Funded.

33. MSU Cross-College Grant (2015-2016)

Chander H, Knight AC, Babski-Reeves & Strawderman L. Slip Initiation in Military Footwear.
Role: PI; Funding: \$2,000.00; Status: Funded.

34. MSU Bagley College of Engineering - Working Group (2016-2017)

Chander H, Strawderman L, Garrison T, Carruth D, Babski-Reeves K, Knight AC, Smith JW.
Human Factors Working Group.
Role: Co-Director; Funding: \$2,000.00; Status: Funded.

35. MSU Bagley College of Engineering - Working Group (2015-2016)

Garrison T, Carruth D, Babski-Reeves K, Strawderman L, Knight AC, Smith JW & **Chander H**.
Human Factors Working Group.
Role: Member; Funding: \$1425.00; Status: Funded.

36. MSU ORED Faculty Research Grant (2014-2015)

Chander H. American Society of Biomechanics.
Role: Research Poster Presenter; Funding: \$965.00; Status: Funded.

37. MSU Cross-College Grant (2014-2015)

Chander H, Knight AC, Babski-Reeves & Strawderman L. Impact of High Top Military Boots on Balance and Ankle Stability.
Role: PI; Funding: \$2,000.00; Status: Funded.

38. MSU Human Factors Working Group (2015)

DeBusk H & **Chander H**. Graduate Student Research Award.
Role: Chair/Advisor; Funding: \$500.00; Status: Funded.

39. MSU Bagley College of Engineering - Working Group (2014-2015)

Seran S, Anderson D, Ball J, Donohoe P, Dabbiru L, Aanstoos J, Kulandaivelu R, Samiappan S, Topsakal E & **Chander H**. RADAR Working Group.
Role: Member; Funding: \$2,000.00; Status: Funded.

40. National Science Foundation (NSF) (2014)

Knight AC, Strawderman L, Garrison T, Luczak T, **Chander H**. Improving Equipment Fit and Individual Customization of the Golf Swing.
Role: Co-PI; Funding: \$998,361.00; Status: Not Funded.

41. University of Mississippi Graduate Student Council Research Grant (2013)

Morris CE & **Chander H**. Impact of Alternative Footwear on Energy Expenditure, Balance & Gait
Role: Co-I; Funding: \$1000.00; Status: Funded.

42. University of Mississippi Graduate Student Council Research Grant (2013)

Chander H. Biomechanical analysis of barefoot and shod conditions in human gait and balance
 Role: PI; Funding: \$1000.00; Status: Not Funded.

43. University of Mississippi Graduate Student Council Research Grant (2011)

Chander H & Garner JC. The effect of extended durations of walking in occupational footwear on postural control
 Role: PI; Funding: \$500.00; Status: Funded.

44. University of Mississippi Research Travel Grant

Chander H. Recipient (2011, 2012, 2013).

45. Recipient of the University of Mississippi Summer Thesis Scholarship

Chander H. Recipient (Summer 2012).

46. Recipient of the University of Mississippi Summer Dissertation Scholarship

Chander H. Recipient (Summer 2014).

RESEARCH AND CLINICAL EXPERIENCE:

Peer-Reviewed Invited Manuscript Reviewer:

Invited Peer-Reviewer	
International Journals	28 Journals
Invited Peer-Reviews Performed	87 Peer-Reviews
Invited Book Peer-Reviews Performed	1 Book Peer-Review
Invited Book Chapter Peer-Review Performed	2 Book Chapter Peer-Review
Invited PhD Dissertation/Thesis External Reviewer	1 International (Australia)

1. *International Journal of Industrial Ergonomics*
2. *Applied Ergonomics*
3. *Strength and Conditioning Journal*
4. *International Journal of Environmental Research and Public Health*
5. *Gait & Posture*
6. *Footwear Science*
7. *Entropy*
8. *Ergonomics*
9. *Safety*
10. *Plos One*
11. *Applied Physiology, Nutrition, and Metabolism*
12. *Human Factors*
13. *Research Quarterly for Exercise and Sport*
14. *Journal of Applied Biomechanics*
15. *Journal of Clinical Medicine*
16. *Safety and Health at Work*
17. *Brain Sciences*
18. *Applied Sciences*

19. *Medicina*
20. *IIE Transactions on Occupational Ergonomics and Human Factors*
21. *Journal of Science and Medicine in Sport*
22. *Journal of Biomechanics*
23. *Journal of Sport Rehabilitation*
24. *Journal of Occupational Health*
25. *Materials*
26. *Computers*
27. *Sports*
28. *Biomimetics*

Research Projects as Lead or Co-Lead:

Human Factors and Ergonomics (Selected):

- Impact of Prolonged Exposure to Slippery Surface on Postural and Locomotor Control (PI)
- Use of Soft-Robotic-Sensors in Fall Detection in Ergonomics (PI)
- Impact of Ketone ingestion on Physiology and Biomechanics in Firefighters (Co-PI)
- UAS (FAA) workstation design for pilot comfort (Co-I)
- Ergonomic Assessment of Engine Assembly Tasks – PACCAR, Inc. (PI)
- Effects of Exogenous Ketone Supplementation in Firefighters: Impact on Physiological and Biomechanical Measures (Co-PI)
- Energy Expenditure and Cardiorespiratory Responses in Occupational Footwear (Co-PI)
- Subjective and Objective Measures of Fatigue: Impact of Occupational Task and Footwear (PI).
- Biomechanics of Balance, Load Carriage and Slips in Military Footwear (PI)
- Impact of Military Footwear on Balance and Ankle Stability (PI)
- Impact of Standing Surface, Cognitive Task and Fatigue on Balance (PI)
- Impact of Whole Body Vibration on Reaction Times during Balance Perturbations (Co-I)
- Biomechanics of Slips in Alternative Footwear (PI)
- Biomechanics of Human Energy Expenditure and Balance in Alternative Footwear (PI)
- Kinematics and Kinetics of Slip Trials in Firefighters (Co-PI)
- The Effect of Occupational Footwear on Dynamic Balance (PI)
- The Effect of Extended Durations of Walking in Occupational Footwear on Balance (PI)
- Pilot testing Kinematics of Walking on Ballast and Non-Ballast Surfaces (Co-I)

Sport performance and enhancement (Selected):

- Comprehensive Jump Testing in Division I Football Athletes (Co-PI).
- Testing novel soft-robotics on assessing human gait (Co-PI).
- Effect of Axe-Type Baseball Bat on Swing Biomechanics (Co-PI).
- Influence of Foot Arch Height and Q-Angle on Postural Stability: A Comparison of Two Vibram Footwear (PI).
- Differences in Lower Extremity Muscle Activity and Start Times for Swing Phases for Baseball Hitters of Varying Competition Level (Co-PI)
- Effects of β - Hydroxybutyrate Supplementation on Resistance Training Performance (Co-I)
- Effects of β -Hydroxybutyrate Supplementation on Repeated Sprint Performance (Co-I)
- Can high intensity interval training improve 800m/1500m indicators of aerobic performance and fitness? (Co-I)

- An Electromyographic Analyses of Core Exercises (PI)
- The effect of Fat-Gripz™ in upper extremity performance (Co-PI)
- The effect of Fat-Gripz™ in upper extremity muscles' force production and EMG: A -week training study (Co-PI)
- Activation of the Right Pectoralis Major and Left Deltoid Muscles During the Golf Swing as an Instructional Technique (Co-I)
- Impact of Vibram Type Minimalist Footwear on Static and Dynamic Balance (Co-PI)
- The Impact of Weighted Vest Training on Selected Athletic Performance (Co-I)
- The Influence of Body Composition on Selected Jump Performance Measures in Varsity Collegiate Female Varsity Athletes (Co-I)
- Three-Dimensional Examination of the Influence of Differently Weighted Warm-up Bats on Swing Kinematics (Co-I)
- The Effects of Whole-Body Vibration on Rest Intervals in Jumping Performance (Co-I)
- The Effect of a TMJ Device on Athletic Performance Measures (Co-I)
- Balance, Body Composition and Jumping Performance in Collegiate Female Athletes (Co-I)

Rehabilitation (Selected):

- Biomechanics of Ankle Stability and Balance in Chronic Ankle Instability (CAI) individuals (Co-I).
- The Effect of Vision on a Variety of Balance Measures in Elderly Adults with and without Parkinson's Disease (Co-I)
- The Impact of Hydrotherapy vs. Land Based Exercise on Balance Performance in Elderly Adults (Co-PI).
- The Impact of Whole Body Vibration on Postural Stability Reaction Times (Co-PI)
- The Effect of Whole-Body Vibration on Functional Stability Measures in Older Women (Co-I).
- The Effect of Cold Suit on Balance Measures Among the Young and Elderly (Analysis)
- The Effect of Cryotherapy and Massage in the Treatment of Delayed Onset of Muscle Soreness (PI) Physical therapy outpatient department

Research Collaborations:

- Neuromechanics Laboratory, Department of Kinesiology, Mississippi State University
- Applied Physiology Laboratory, Department of Kinesiology, Mississippi State University
- Human Performance Laboratory, Center of Advanced Vehicular Systems, Mississippi State University
- Applied Biomechanics Laboratory, Department of Health, Exercise Science & Recreation, The University of Mississippi
- Department of Industrial and Systems Engineering, Auburn University
- Biomechanics and Sport Performance Laboratory, Department of Kinesiology, California State University, San Bernardino

TEACHING CURRICULUM:

Mississippi State University:

Teaching Evaluations	Overall Average
Global Index	4.7/5

- MSU - KI 8543 – Postural and Locomotor Rehabilitation (Spring 2019)
- 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)
- MSU - EP 3233 – Anatomical Kinesiology (Fall 2014, 2015, 2016, 2017; 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)

The 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 Weight Lifting (Fall 2009, Spring 2010)

PROFESSIONAL ORGANIZATIONS AND SERVICE:

Mentorship/Advising:

Student Advisor and Committee Service	
Graduate - Doctoral (PhD)	Graduate Level 1 Faculty Chair: 4 Students Committee Member: 4 Students
Graduate - Masters (MS)	Chair: 4 Students Co-Chair: 2 Students Committee Member: 2 Students Non-Thesis Committee Member: 12 Students
Undergraduate - Bachelors (BS)	Chair for Directed Individual Study: 10 Students Chair for Internship: 4 Students Advisor: 90 Students

Graduate Students:

- Alana Turner – PhD Student (Chair)
- Sachini Kodithuwakku – PhD Student (Chair)
- Ethan Stewart – PhD Student (Chair)
- Brandon Miller – PhD Student (Chair)
- Jeffrey Simpson – PhD (Committee Member)
- Kyana Ramsey – MS Student (Chair) – Non Thesis DIS
- Kristy Gourley – MS Student (Committee Member) – Non Thesis DIS
- Alana Turner – MS (Chair)
- Philip Sutton – MS (Committee Member / Co- Chair) – Non Thesis DIS
- Hayes Salancy – MS (Committee Member) – Non Thesis DIS
- Sachini Kodithuwakku – MS (Committee Member/ Co-Chair)
- Prakash Dandapani – MS (Chair) – Non Thesis Internship
- Peyton Jenson – MS (Chair) – Non Thesis Internship
- Hunter DeBusk – MS (Chair), PhD (Committee Member)
- Chris Hill – MS (Chair), PhD (Committee Member)
- Austin Harris – MS (Committee Member) – Non Thesis Internship
- John Smith – MS (Committee Member) – Non Thesis Internship
- Korakot Simsiriwong – MS (Chair)
- Matt Crahan – MS (Committee Member) – Non Thesis DIS
- Dimitri Gayden – MS (Committee Member)
- Ty Stewart – MS (Committee Member) – Non Thesis DIS
- Tony Luczak – MS Student (Committee Member) – Non Thesis DIS
- Jenna Wooten – MS (Committee Member) – Non Thesis DIS
- Ffion Price – MS (Committee Member)

Undergraduate Students (Directed Individual Study/Internship in Lab):

- Skylar Belton
- Lexie Fallon
- Abbie Scott
- Tanner Bevill
- Hannah Hall
- McKenzie Buckner
- Corinne Cobb
- Bo Balducci
- Lauren Young
- Kacey Byrd
- Allison Essary
- Alana Turner
- Jonathan Swain
- Kamaron Malone
- Russell Lowell
- Justin McDaniel
- Justin Taylor
- Ben Cochran
- Montia Pace

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
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 Guest Speaker – UTHSC Department of Physical Therapy – Sept 2019
- Invited Conference Moderator (Clinical Biomechanics Session) – Mid-South Biomechanics Conference – Feb 2018.
- Deep South NIOSH ERC Research Symposium 2017 – Biomechanics of Balance, Load Carriage and Slips in Military Footwear, 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 Settings (Administrative Office), Ole Miss Theatre, University of Mississippi, USA, 2013
- Ergonomics Awareness and Workplace Safety (Slips, Trips and Fall Prevention) Schwing Stetter India Pvt. Ltd, Chennai, India, 2013

Invited Undergraduate Lectures:

- UM 2013, ES 346 Kinesiology – Ankle and Foot Complex
- UM 2013, ES 446 Biomechanics of Human Movement – Introduction to Biomechanics
- UM 2013, ES 446 Biomechanics of Human Movement – Mechanical Levers in Humans
- UM 2012, ES 446 Biomechanics of Human Movement – Gait

Invited Graduate Lectures:

- UM 2013, ES 632 Advanced Structural Kinesiology – Biomechanics of the Foot and Ankle Complex
- UM 2013, ES 632 Advanced Structural Kinesiology – Biomechanics of the Hip Complex
- UM 2013, ES 632 Advanced Structural Kinesiology – Biomechanics of the Spine
- UM 2012, ES 512 Foundations of Biomechanics – Biomechanics of Balance and Gait
- UM 2011, ES 632 Advanced Structural Kinesiology – Spine Structural Kinesiology
- UM 2011, ES 632 Advanced Structural Kinesiology – Gait
- UM 2011, ES 632 Advanced Structural Kinesiology – Postural Control and Balance
- UM 2011, ES 612 Instrumentation and Analysis in Biomechanics – Assessment of Balance

AWARDS AND RECOGNITIONS:

- 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 - 2nd Place; 2012

IN THE NEWS/MEDIA:

- **Chander H.** MSU “Our People” Faculty Spotlight. <https://www.msstate.edu/our-people/2019/01/harish-chander/>
- **Chander H.** MSU TV - https://www.youtube.com/watch?v=Yu6GF_J4Fkc&t=182s
- Turner AJ & **Chander H.** Kinesiology Graduate Student Finds Success in Fall Prevention Research. <https://www.educ.msstate.edu/news/kinesiology-graduate-student-finds-success-fall-prevention-research/>
- **Chander H.** Interview for news article on balance performance in *Dr. Oz’s Good Life Magazine*. <http://www.drozthegoodlife.com/fitness/strength-cardio-exercise/how-to/a1951/balance-workout/>
- **Chander H.** Interview for news article on balance performance in *Women’s Health Magazine*.
- **Chander H.** Featured on “Faculty Spotlight” in the 2016 COE newsletter.
- **Chander H.** Featured on the 2016 Kines Newsletter.
- **Chander H.** Infinite Impact MSU Foundation. Story by Watson Paige. <http://www.educ.msstate.edu/news/chander-knight-represent-college-education-infinite-impact-campaign-event/>
- **Chander H** and Knight AC. NM Lab Insights. <https://www.youtube.com/watch?v=4yUSqNUIQIA&t=20s>
- **Chander H** and Knight AC. NM Lab represents at ASB 2016. <http://www.kinesiology.msstate.edu/headlines/neuroconference.php>
- **Chander H** and Knight AC. NM Lab at SEACSM 2016. <http://www.kinesiology.msstate.edu/headlines/headline/stewart.php>

REFERENCES:

John C. Garner III, Ph.D., C.S.C.S

Chair

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Department of Kinesiology

Mississippi State University

McCarthy 216, Mississippi State, MS 39762

Email: Aknight@colled.msstate.edu, Phone: (334) 332 0002

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California State University, San Bernardino
Department of Kinesiology, HP 210
5500 University Parkway, San Bernardino, CA 92407
Email: ncdabbs@gmail.com, Phone: (714) 337 0570